

MONTHLY PROGRESS REPORT THROUGH 31 MARCH 1965

LIFE CYCLE TESTS

1. Status of Cycling Program: The cycling program has included cells from the following manufacturers: General Electric Company (G.E.), Gould-National Batteries, Inc. (Gould), Sonotone Corporation (Sonotone), Yardney Electric Corporation (Yardney), Gulton Industries, Inc. (Gulton) and Delco-Remy (Delco).

TOTAL NUMBER OF PACKS PLACED IN PROGRAM: 109.

Cell Type	Total Number of Packs			Cells Failed*	
	Cycled To Date	Still Cycling	Failed	Since Last Report	Total To Date
NICKEL CADMIUM (10-cell packs)					
G.E. 3.0 ah	12	9	3	0	23
Gould 3.5 ah	12	5	7	0	51
Sonotone 5.0 ah	12	11	1	2	23
Gulton 6.0 ah	12	6	6	0	57
TOTAL	48	31	17	2	154
NICKEL CADMIUM (5-cell packs)					
G.E. 12 ah	13	11	2	0	7
Gulton 4.0 ah	6	6	0	0	0
Gulton 6.0 ah	1	1	0	0	2
Gulton 6.0 ah HSI	3	3	0	0	0
Gulton 12 ah	6	6	0	1	1
Gulton 20 ah	12	6	6	2	25
Gulton 50 ah	2	0	2	0	6
Gould 20 ah	12	6	6	0	19
TOTAL	55	39	16	3	60
SILVER CADMIUM (10-cell packs)					
Yardney 12 ah	2	0	2	0	16
TOTAL	2	0	2	0	16
SILVER ZINC (5-cell packs)					
Delco 25 ah	3	1	2	0	5
Delco 40 ah	1	0	1	0	2
TOTAL	4	1	3	0	7

\* All failure analysis results are cumulative. These results are shown on pages 4 through 31.

**N65-22173**

(ACCESSION NUMBER)	(THRU)
1106	1
(PAGES)	(CODE)
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(NASA CR OR TMX OR AD NUMBER)	(CATEGORY)

Enclosure (1)

Hard copy (HC) 4.00  
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U. S. NAVAL AMMUNITION DEPOT  
CRANE, INDIANA 47522

REPLY REFER TO:  
QEW 2-HMS:bc  
8900

20 APR 1965

From: Commanding Officer, U. S. Naval Ammunition Depot, Crane, Indiana  
To: National Aeronautics and Space Administration, Goddard Space Flight  
Center, Electrochemical Power Sources Section (636.2), Space Power  
Technology Branch, Greenbelt, Maryland 20771

Subj: Monthly Progress Report on National Aeronautics and Space Adminis-  
tration Space Cell Test Program; submission of

Encl: (1) Monthly Progress Report as of 31 March 1965 (3 copies)

1. The progress report for National Aeronautics and Space Administration  
purchase order W11,252B on the space cell test program is submitted as  
enclosure (1).

E. R. PETTEBONE

V. YEAGER  
By direction

Copy to:

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(Wing Commander Cherry), 3100 Massachusetts Ave. NW, Washington, D. C. 20008

2. Test Parameters:

a. Ambient Temperatures:

- (1) 0° C.
- (2) 25° C.
- (3) 40° C.

b. Voltage limits per pack on charge:

- (1)  $1.55 \pm 0.03$  volts per cell at 0° C.
- (2)  $1.49 \pm 0.03$  volts per cell at 25° C.
- (3)  $1.45 \pm 0.03$  volts per cell at 40° C.
- (4)  $1.97 \pm 0.03$  volts per cell at 25° C. on the silver zinc packs.

c. Depth of Discharge:

- (1) 90-minute and 3-hour orbits:
  - (a) 15 percent and 25 percent at 0° C.
  - (b) 25 percent and 40 percent at 25° C.
  - (c) 15 percent and 25 percent at 40° C.
- (2) 24-hour orbits:
  - (a) 50 percent at 0° C, 25° C and 40° C.
  - (b) 40 percent at 25° C on the silver zinc packs.

d. Orbit Times:

- (1) 90 minutes--30-minute-discharge and 60-minute charge.
- (2) 3 hours--30-minute discharge and 150-minute charge.
- (3) 24 hours--1-hour discharge and 23-hour charge.

3. Data:

a. Normal operation schedules complete data to be recorded on 90-minute and 3-hour packs every 32 cycles. On 24-hour cycles, complete data is taken every eight cycles.

b. The attached data sheets give end of discharge and end of charge voltage readings for each cell on each cycle recorded.

#### 4. Capacity Tests:

a. Prior to cycling, each pack was given a capacity test at its respective cycling temperature. This check consisted of a c/10 charge for 16 hours followed by a c/2 discharge to 1.0 volt/cell average. After each 88 days of cycling, each pack was discharged at the c/2 rate to 1.0 volt/cell average following a charge at the cycle rate. The pack was then recharged at the c/10 rate for 16 hours and discharged at the c/2 rate to 1.0 volt/cell average. The pack was then recharged at the c/10 rate for 48 hours, voltage limited to the cycle limits. Data of capacity tests is tabulated on pages 32 through 36.

CELL TYPE: General Electric 3.0 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
16	40%	1.5	25°	427	7	3985	Low Volt Disch, Normal Volt Chg, Pos Tab Broken and Touching Case. Burned Tape on Tab Caused by Overheating From Poor Tab Weld.
			25°	58	6	4473	Low Volt Disch, Normal Volt Chg, Short on One Edge of Plates, Neg Plate Material Penetrated Separator.
			25°	361	1	4741	Low Volt Disch, Normal Volt Chg, Shorted, Separator Deteriorated, Neg Plate Material Penetrated Separator.
			25°	522	5	4917	Low Volt Disch, Low Volt Chg, Separator Impregnated with Neg Plate Material, Separator Deteriorated.
			25°	456	10	4917	Low Volt Disch, Low Volt Chg, Separator Impregnated with Neg Plate Material, Separator Deteriorated.
			25°	719	4	5013	Low Volt Disch, Low Volt Chg, Separator Impregnated with Neg Plate Material, Separator Deteriorated, Several Small Burned Areas on Separator.
39	15%	1.5	50°	541	2	779	Low Volt Disch, High Volt Chg, Leaked, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.
			40°	540	6	2083	Low Volt Disch, High Volt Chg, Leaked, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.
			40°	549	7	2523	Low Volt Disch, High Volt Chg, Pos Tab Burned.

CELL TYPE: General Electric 3.0 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	PERCENT OF DISCHARGE	ORBIT PERIOD (HOURS)	TEMPERATURE	CELL NUMBER	POSITION IN PACK	GROUP NUMBER	FAILURE ANALYSIS
40	25%	1.5	40°	464	3	2073	Low Volt Disch, High Volt Chg, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.
			40°	3131	8	2182	Low Volt Disch, Normal Volt Chg, Leaked, Loose Plate Material on Separator.
			40°	47	7	2182	Low Volt Disch, High Volt Chg, Shorted at Top of Core, Separator Too Short, Pos Tab Burned and Broken.
			40°	49	5	2446	Low Volt Disch, High Volt Chg, Pos Weld to Terminal Stud Burned, Poor Weld.
			40°	45	10	2461	Low Volt Disch, High Volt Chg, Loose Plate Material on Separator, Short at Outside End of Pos Plate.
			40°	466	2	2509	Low Volt Disch, High Volt Chg, Leaked, Pos Tab Burned and Shorted to Neg Tab.
			40°	441	6	2509	Low Volt Disch, High Volt Chg, Leaked, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.
43	15%	3.0	40°	416	4	1182	Low Volt Disch, Low Volt Chg, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.
			40°	499	3	1515	Low Volt Disch, High Volt Chg, Shorted at Top of Core, Separator Too Short, Pos Tab Burned and Broken.
			40°	412	6	1911	Showed Open Circuit at Start of Cycle, Pos Tab Broken, Burned Tape on Tab Caused by Overheating From Poor Tab Weld.
			40°	426	9	2298	Showed Open at Start of Cycle, Pos Tab Corroded, Pos Tab Broken, Top of Separator Burned, Separator Impregnated with Neg Plate Material, Separator Deteriorated.

2000

2000

CELL TYPE: General Electric 3.0 Ampere-Hour

PACK NUMBER	PERCENT OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
43	15%	3.0	40°	436	7	2515	Shown Open at Start of Cycle, Pos Tab Corroded, Pos Tab Broken, Poor Roll, Uneven Wind at End of Roll, Shorts at Top of Roll, Separator Deteriorated.
				435	10	2656	Shown Open at Start of Cycle, Pos Tab Corroded, Pos Tab Broken, Separator Impregnated with Neg Plate Material, Separator Deteriorated.
44	25%	3.0	40°	222	6	1672	Shown Open Circuit at Start of Cycle, Pos Tab Broken, Burned Tape on Tab Caused By Overheating From Poor Tab Weld.

CELL TYPE: Gould 3.5 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	COGNOME NUMBER	FAILURE ANALYSIS
3	25%	1.5	25°	73	5	2785	Low Volt Disch, High Volt Chg, Short Near Center of Core, Piece of Pos Plate Material Between Plates Causing Short Through Separator.
				54	2	3090	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.7 gm, Weak Weld on Neg Tab to Plate.
				165	9	4081	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.7 gm, Deposit on Glass Seal, Short Through Separator, Short at Pos Tab Near Center of Core, Neg Tab Weld to Plate Weak.
4	40%	1.5	25°	93	6	4289	Low Volt Disch, Normal Volt Chg, Leaked Around Glass Seal, Lost 2.6 gm, Separator Deteriorated, Neg Plate Material Penetrated Separator.
				97	7	4401	Low Volt Disch, Normal Volt Chg, Leaked Around Glass Seal, Lost 2.5 gm, Separator Deteriorated, Neg Plate Material Penetrated Separator.
				77	4	4751	Low Volt Disch, Normal Volt Chg, Separator Deteriorated, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates.
				188	10	4751	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.1 gm, Neg Plate Material on Separator.
				81	7	1609	Low Volt Disch, Normal Volt Chg, Leaked, Lost 3.2 gm, High Pres Bulge Top.
				90	8	1327	Low Volt Disch, Low Volt Chg, Leaked, Lost 2.7 gm, High Pres Bulge Top.
				2	1	2110	Low Volt Disch, Low Volt Chg, Separator Deteriorated at Center of Core, Under Pressure When Opened.

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CELL TYPE: Gould 3.5 Ampere-Hour

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
4	40%	1.5	25°	43	6	2954	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.3 gm, Plate Material on Separator.
			25°	27	3	3029	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Separator Deteriorated.
			25°	198	10	3164	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.6 gm, Separator Deteriorated, Pos Plate Material Between Plates.
7	25%	3.0	25°	49	2	3007	Low Volt Disch, Normal Volt Chg, Leaked Around Glass Seal, Lost 2.7 gm, Neg Plate Material Migrated Through Separator, Separator Deteriorated, One Weak Weld Pos Tab to Plate.
			25°	37	1	*3130	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.1 gm, Glass Seal Broken, Separator Very Dry, Neg Plate Material Migration, Pinpoint Penetration, Loose Neg Plate Material on Separator, Separator Deteriorated, All Tab Welds to Plates Weak.
8	40%	3.0	25°	68	6	1346	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.5 gm, Plate Material on Separator.
			25°	112	8	1704	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.0 gm, Pos Tab Weld to Bottom of Can Weak, Pos Tab Weld to Plate Weak.
			25°	39	1	1985	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Separator Deteriorated, Neg Plate Material on Separator.
			25°	170	10	1985	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.8 gm, Pos and Neg Tab Weld Weak to Plates Near Center of Core, Separator Deteriorated at Center of Core.

\* FAILED DURING THIS REPORTING PERIOD

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CELLS COMPLETED	FAILURE ANALYSIS
8	40%	3.0	25°	78	7	2138	CELL TYPE: <u>Gould 3.5 Ampere-Hour</u> Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 1.4 gm, Pos Tab Weld to Case Weak, Separator Deteriorated, Neg Plate Material Penetrated Separator.
			25°	41	2	2494	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 1.7 gm, Separator Deteriorated, Neg Plate Material Impregnated Separator, One Bad Weld Neg Tab to Plate.
			25°	130	9	2494	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 2.1 gm, Separator Deteriorated, Pos and Neg Plate Material Impregnated Separator.
27	15%	1.5	40°	13	3	2901	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.5 gm, Separator Deteriorated, Pos Plate Material on Separator.
			40°	195	8	2901	Low Volt Disch, Normal Volt Chg, Leaked, Lost 3.6 gm, Short Through Separator, Separator Burned at Center of Core, Pos Plate Material on Separator.
			40°	103	7	2998	Low Volt Disch, Normal Volt Chg, High Pres, Short Through Separator, Pieces of Pos Plate Material Between Plates.
			40°	200	10	3270	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.5 gm, Short Through Separator, Separator Deteriorated at Center of Core, Pos Tab Weld to Case Weak.
			40°	197	9	4102	Low Volt Disch, High Volt Chg, Leaked Around Glass Seal, Lost 1.4 gm, Short at Pos Tab, Separator Deteriorated, Neg Plate Material Penetrated Separator.
			40°	111	2	4485	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Separator Deteriorated, Separator Impregnated with Neg Plate Material.

CELL TYPE: Gould 3.5 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
31	15%	3.0	40°	R166	9	1500	Low Volt Disch, Low Volt Chg, Leaked, Lost 7.1 gm, Separator Deteriorated.
			40°	R179	10	1500	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.5 gm, Short Through Separator, Separator Deteriorated, One Weak Tab.
			40°	R92	2	1696	Low Volt Disch, High Volt Chg, Pieces of Plate Material Shorted Through Separator, Separator Deteriorated.
			40°	126	3	2411	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 2.1 gm, Short Through Separator by Piece of Pos Plate Material Between Plates, Separator Deteriorated, Neg Plate Material Impregnated Separator, Tab to Plate Weld Poor.
			40°	R162	8	2477	Low Volt Disch, High Volt Chg, Leaked Around Glass Seal, Lost 2.4 gm, Separator Deteriorated, Neg Plate Material Impregnated Separator, Pinpoint Penetration, Poor Weld Pos Tab to Case.
			40°	72	1	2517	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 1.8 gm, Short Between Plates, Extra Piece of Pos Plate Between Plates, Separator Deteriorated, Pos Tabs to Plate Weld Both Weak.
			40°	143	6	2517	Low Volt Disch, Low Volt Chg, Short Through Separator at Start of Core, Extra Piece of Pos Plate Material, Separator Impregnated with Neg Plate Material, Separator Deteriorated, Neg Tab Weld to Pigtail Weak, One Tab to Pos Plate Weld Weak, Still Under Pressure When Opened.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	CELL TYPE: FAILURE ANALYSIS
28	25%	1.5	50°	122	2	408	Could 3.5 Ampere-Hour Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.8 gm, Weak Bottom Weld Suspicious Spot but not Definite.
			40°	157	7	484	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.0 gm, High Pres Bulge.
			40°	158	8	484	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.9 gm, High Pres Bulge Top.
			40°	141	5	860	Low Volt Disch, High Volt Chg, Leaked, Lost 3.5 gm.
			40°	168	10	1293	Low Volt Disch, High Volt Chg, Weak Weld to Bottom of Case.
			40°	121	1	1811	Low Volt Disch, Low Volt Chg, Short at Outside End of Plates, Grid Wire Penetrated Separator.
			40°	133	3	1811	Low Volt Disch, High Volt Chg, Weak Weld on Pos Tab to Case.
			40°	140	4	1811	Low Volt Disch, Low Volt Chg, Short Around Pos Tab, Blistering on Pos Plate, Active Neg Plate Material on Separator.
			40°	155	6	1811	Low Volt Disch, Low Volt Chg, Short Through Separator, Weak Weld to Bottom of Case.
			40°	163	9	1811	Low Volt Disch, Low Volt Chg, Short Through Separator, Weak Weld to Bottom of Case, Deposit on Glass Seal.

PACK NUMBER	PERCENT OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	CELL TYPE: Gould 3.5 Ampere-Hour FAILURE ANALYSIS
32	25%	3.0	40°	125	6	138	Low Volt Disch, Normal Volt Chg, Bottom Weld Weak, Greenish Corrosion Inside at Neg Lead.
			40°	65	3	495	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.5 gm, Bad Glass Seal Around Neg Terminal.
			40°	1	1	800	Low Volt Disch, Normal Volt Chg, Leaked, Lost 3.2 gm, Shorts Near Center of Core.
			40°	67	4	875	Low Volt Disch, Low Volt Chg, Leaked, Lost 2.2 gm, Short Around Tabs, Pos Tab Weld Weak to Case.
			40°	132	7	875	Failed During Shut Down to Move to Another Chamber, Leaked, Lost 4.4 gm, High Pres. Neg Tabs Pushed Out of Cell, Short at Center and Outside Edge of Core.
			40°	149	9	974	Low Volt Disch, High Volt Chg, Leaked, Lost 1.1 gm, Piece of Pos Plate Material Shorted Through Separator, Weak Welds to Case and Plates.

CELL TYPE: Sonotone 5.0 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	PROBES COLLECTED	FAILURE ANALYSIS
1	25%	1.5	25°	4361	4	2995	Low Volt Disch, High Volt Chg, Inclusion on Surface of Outside Pos Plate Wore Hole Through Separator and Thin Outside Wrap, Separator Sticking to Neg Plate, Glass Seal Leaked.
			25°	4335	1	4423	Low Volt Disch, High Volt Chg, Neg Tabs Weak Weld to Plates, Separator Melted at Center of Core, Extreme Pressure Points on Separator From Scoring Causing High Resistance Shorts.
2	40%	1.5	25°	811	10	3155	Shorted on Cycling, Leaked Around Seal, High Pressure Bulge on Bottom, Insulators Brittle, Exposed Grid Wires at Center of Core Penetrated Separator Causing Large Burned Area at Short, Pos and Neg Tab Weld Poor.
			25°	3628	5	3992	Low Volt Disch, Normal Volt Chg, Leaked Around Seal, High Pres Bulge on Bottom, Hole in Separator Exposing Pos and Neg Plates, Neg Plate Material Penetrated Separator.
			25°	3613	2	4411	Low Volt Disch, Low Volt Chg, Two Pieces of Neg Plate Material Wore Hole in Separator at Scoring Mark, Burned Through Plates, Neg Tab Welds Poor, Separator Beginning to Deteriorate.

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CELL TYPE: Sonotone 5.0 Ampere-Hour

BACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CELLS COMPLETED	FAILURE ANALYSIS
6	40%	3.0	25°	4324	8	1069	Low Volt Disch, Normal Volt Chg, Separator Impregnated With Active Material, Separator Sticking to Neg Plate.
			25°	6904	10	1136	Low Volt Disch, Low Volt Chg, Small Hole in Separator at Start of Coil, Pos Plate Edge Broken Allowing Grid Wire to Penetrate Separator.
			25°	3637	4	1161	Grid Wires of Pos Plate Penetrated Separator and Shorted to Neg Plate, Active Plate Material Penetrated Separator at Three Points, Bad Tab Welds.
26	25%	1.5	40°	4323	1	2487	Grid Wire Penetrated Separator at Tabs.
			40°	6773	9	2902	Shorted on Cycling, Slight Burn Adjacent to Neg Tab, Separator Deteriorated, Neg Plate Material Penetrated Separator, Tab Welds Weak.
			40°	7224	6	2993	Low Volt Disch, Normal Volt Chg, High Pres Bulge, Deposit Around Seal, Neg Tab Weld Weak, Neg Plate Material Penetrated Separator.
			40°	7232	7	2993	Low Volt Disch, Normal Volt Chg, High Pres Bulge, Deposit Around Seal, Pos Tab Weld Weak, Plate Broken at Pos Tab, Deep Pressure Points From Scoring, Separator Completely Deteriorated.
			40°	4881	3	3344	Shorted on Cycling, Complete Short From Deep Scoring, Plate Shorted Through Outer Wrap.
			40°	4240	4	3625	Low Volt Disch, Low Volt Chg, Separator Deteriorated, Plate Material Penetrated Separator.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	CELL TYPE: Sonotone 5.0 Ampere Hour FAILURE ANALYSIS
29	15%	3.0	40°	3626	1	1418	Shorted on Cycling, Neg Tab Welds Poor, Active Plate Material Penetrated Separator at Scoring Marks.
30	25%	3.0	40°	3657	7	855	Hole in Separator Allowing Pos Plate to Hit Case, Separator Damaged at Center of Cell Allowing Pos and Neg Plate to Short Together.
49	15%	1.5	0°	6887	9	2010	Low Volt Disch, Low Volt Chg, Burn on Separator Opposite Pos Tab.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	GILT NUMBER	POSITION IN PACK	COPIES COMPLETED	CELL TYPE: FAILURE ANALYSIS
13	25%	1.5	25°	2305	1	308	Low Volt Disch, High Volt Chg, Lost 12 gm, CO <sub>3</sub> Top Ceramic, High Pres Bulge.
			25°	2355	10	502	Low Volt Disch, High Volt Chg, Lost 10 gm, High Pres Bulge.
			25°	3134	5	2969	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates.
			25°	3211	7	3084	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates.
			25°	2613	4	3598	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plate, Separator Deteriorated.
			25°	2324	2	4021	Low Volt Disch, Low Volt Chg, Ceramic Short, Separator Deteriorated, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge.
14	40%	1.5	25°	1623	4	262	Low Volt Disch, High Volt Chg, Lost 12 gm, High Pres Bulge.
			25°	1635	5	262	Voltage Fell Off During Charge, Went Flat in 3 Min. on Disch, Lost 6 gm, Concave Wall, High Pres. Bulge, Ceramic Broken Inside Case, CO <sub>3</sub> on Outside of Ceramic, Pos Terminal Loose.
			25°	2356	1	450	Low Volt Disch, High Volt Chg, Lost 12 gm, High Pres.
			25°	2387	2	1113	Low Volt Disch, High Volt Chg, Ceramic Short.
			25°	2391	3	1618	Low Volt Disch, Low Volt Chg, Ceramic Short.
			25°	3208	7	2086	Low Volt Disch, Normal Volt Chg, Ceramic Short.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
17	25%	3.0	25°	1862	5	721	Low Volt Disch, High Volt Chg, Ceramic Short.
			25°	1823	3	721	Low Volt Disch, High Volt Chg, High Pres Bulge, Burnt Spot on Neg Plate Near Bottom Second From End, Ceramic Short.
			25°	2348	10	1688	Low Volt Disch, Low Volt Chg, Ceramic Short.
			25°	1757	1	2375	Low Volt Disch, Low Volt Chg, Ceramic Short, Deposit Around Ceramic Seal, High Pres Bulge.
			25°	1598	2	2449	Low Volt Disch, Low Volt Chg, Pinpoint Penetration of Separator, Blistering on Pos Plate, High Pres Bulge.
			25°	2347	9	2885	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates, High Pressure Bulge, Still Under Pressure When Opened.
18	40%	3.0	25°	1826	6	365	Low Volt Disch, Chg Volt Normal, Lost 3 gm, Concave Wall, Ceramic Short.
			25°	1615	3	608	Low Volt Disch, Normal Volt Chg, Deposit on Top of Pos Terminal, Lost 5.1 gm, High Pres Bulge.
			25°	1827	7	643	Low Volt Disch, High Volt Chg, High Pres Bulge, Ceramic Short.
			25°	2228	9	643	Low Volt Disch, High Volt Chg, Ceramic Short.
			25°	1562	5	1145	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates.
			25°	1233	1	1550	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plate, Neg Plate Material on Separator.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CRACKS OBSERVED	CELL TYPE: Gulton 6.0 Ampere-Hour	FAILURE ANALYSIS
37	15%	1.5	50°	1764	3	238	Low Volt Disch, Volt Did Not Increase on Following Chg, (1.00 V) Lost 4 gm, Ceramic Short.	Low Volt Disch, Volt Did Not Increase on Following Chg, (1.00 V) Lost 4 gm, Ceramic Short.
			40°	1784	8	1566	Low Volt Disch, Low Volt Chg, Lost 10.5 gm, Ceramic Short.	Low Volt Disch, Low Volt Chg, Lost 10.5 gm, Ceramic Short.
			40°	1802	4	2819	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plate.	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plate.
			40°	2333	10	2981	Low Volt Disch, Normal Volt Chg, Ceramic Short, Blistering on Pos Plates.	Low Volt Disch, Normal Volt Chg, Ceramic Short, Blistering on Pos Plates.
			40°	1769	7	4897	Low Volt Disch, Normal Volt Chg, Ceramic Short, Leaked, Lost 1 gm, Blistering on Pos Plate, Separator Deteriorated.	Low Volt Disch, Normal Volt Chg, Ceramic Short, Leaked, Lost 1 gm, Blistering on Pos Plate, Separator Deteriorated.
38	25%	1.5	50°	1454	8	37	No Volt on Chg or Disch, Ceramic Short.	No Volt on Chg or Disch, Ceramic Short.
			50°	1815	6	114	Volt Fell Off During Disch, Chg Volt Slightly Low, Lost 3.5 gm, Ceramic Short.	Volt Fell Off During Disch, Chg Volt Slightly Low, Lost 3.5 gm, Ceramic Short.
			40°	1853	9	187	Rev on Disch, Chg Volt Normal, Lost 4 gm, Deposits Around Pos Terminal (Outside), Ceramic Short.	Rev on Disch, Chg Volt Normal, Lost 4 gm, Deposits Around Pos Terminal (Outside), Ceramic Short.
			40°	1627	3	225	Low Volt Disch, High Volt Chg on Cycle 219, Dead on 225, Lost 3.5 gm.	Low Volt Disch, High Volt Chg on Cycle 219, Dead on 225, Lost 3.5 gm.
			40°	2405	5	1333	Low Volt Disch, Normal Volt Chg, Pos Bus Shorted to Case.	Low Volt Disch, Normal Volt Chg, Pos Bus Shorted to Case.
			40°	1626	2	1377	Low Volt Disch, Low Volt Chg, High Pres Bulge, Ceramic Short.	Low Volt Disch, Low Volt Chg, High Pres Bulge, Ceramic Short.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
41	15%	3.0	40°	1771	9	649	Low Volt Disch, High Volt Chg, Ceramic Short.
			40°	1801	6	1062	Low Volt Disch, Normal Volt Chg, Ceramic Short.
			40°	3135	2	1132	Low Volt Disch, Normal Volt Chg, Ceramic Short.
			40°	1852	7	1157	Low Volt Disch, Normal Volt Chg, Ceramic Short, Blistering on Pos Plates.
			40°	2221	8	1157	Low Volt Disch, Normal Volt Chg, Ceramic Short.
			40°	1632	3	1689	Low Volt Disch, Normal Volt Chg, Ceramic Short, Blistering on Pos Plates.
42	25%	3.0	50°	2309	8	96	Low Volt Disch, Normal Volt Chg, Ceramic Short.
			40°	2346	7	382	Low Volt Disch, Low Volt Chg, CO <sub>3</sub> on Bottom of Case, Ceramic Short.
			40°	2306	9	416	Low Volt Disch, High Volt Chg, Ceramic Short.
			40°	918	1	484	Low Volt Disch, Low Volt Chg, High Pres Bulge, Deposit on Bottom of Case, Ceramic Short, Lost 3.1 gm.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEMPERATURE	CELL NUMBER	POSITION IN PACK	CELLS CONTAINED	CELL TYPE: Gulton 6.0 Ampere-Hour
61	15%	1.5	0°	1622	2	1	FAILURE ANALYSIS Volt Between 0.25 and 0.3 V Throughout Cycle, Side Concave, Turnt Case, End Neg Pushed into Pos Tab. Cell Replaced in Pack Due to Early Failure.
				1845	8	6	Lost 5 gm, Leak at Weld on Bottom, High Pres Bulge, Cell Replaced in Pack Due to Early Failure.
				2397	5	2762	Low Volt Disch, Low Volt Chg, Ceramic Short.
				1825	4	4094	Low Volt Disch, Low Volt Chg, Ceramic Short, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge.
				2311	10	4285	Low Volt Disch, Low Volt Chg, Ceramic Short, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge.
				2400	6	4413	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates, High Pres Bulge.
				1630	10	2995	Low Volt Disch, High Volt Chg, Leaked, Lost 6.8 gm, Ceramic Seal Broke, Deposit on Inside of Ceramic, High Pres Bulge, Blistering on Pos Plates.
				1792	4	4066	Low Volt Disch, Low Volt Chg, Small Shorts Through Separator Near Pos Tab, Blistering on Pos Plate, Separator Deteriorated.
				1806	5	4441	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates, High Pres Bulge.
62	25%	1.5	0°	1630	10	2995	Low Volt Disch, High Volt Chg, Leaked, Lost 6.8 gm, Ceramic Seal Broke, Deposit on Inside of Ceramic, High Pres Bulge, Blistering on Pos Plates.
				1792	4	4066	Low Volt Disch, Low Volt Chg, Small Shorts Through Separator Near Pos Tab, Blistering on Pos Plate, Separator Deteriorated.
				1806	5	4441	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates, High Pres Bulge.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	CELL TYPE: Gulton 6.0 Ampere-Hour
66	25%	3.0	0°	1794	6	1045	FAILURE ANALYSIS Low Volt Disch, High Volt Chg, High Pres Bulge, Concave Side, Ceramic Broken, No Seal, Lost 5.1 gm, Pos Bus Against Case.
			0°	1843	8	1173	Low Volt Disch, Low Volt Chg, Wall Concave, Ceramic Short.
			0°	1781	5	1237	Low Volt Disch, High Volt Chg, High Pres Bulge, Deposit Around Pos Terminal, Ceramic Broken on Pos Terminal, Blisters on Pos Plate, Burnt Spot on Separator at Blisters, Lost 1.3 gm.
			0°	1634	3	1417	Low Volt Disch, Normal Volt Chg, Ceramic Short, High Pres Bulge, One Side Concave Other Convex, Pos Plates Blistered, Lost 2.3 gm.
			0°	1823	7	2122	Low Volt Disch, Low Volt Chg, Leaked, Lost 7.8 gm, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge, One Side Concave.

CELL TYPE: General Electric 12.0 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
93	50%	24.0	40°	204	1	266	Cell Lost Capacity on Cycling But Came Back When Removed From Pack, So It Was Put Back on Cycling in Same Pack.
96	40%	1.5	25°	208	2	266	Low Volt Disch, Normal Volt Chg, Was Opened Up But Did Not Show Anything to be Wrong With Cell, Failure Due to Loss of Capacity.
				445	3	3822	Low Volt Disch, Low Volt Chg, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator.
				446	2	4020	Low Volt Disch, Low Volt Chg, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator.
				442	4	4020	Low Volt Disch, Low Volt Chg, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator.
99	25%	1.5	40°	429	3	3841	Shorted on Cycling, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator, Leaked at Neg Terminal, Epoxy Lifted Up.
				432	2	3841	Failed During Shut Down of Pack, Separator Deteriorated, Separator Impregnated with Neg Plate Material.
124	25%	1.5	40°	440	1	4853	Low Volt Disch, Low Volt Chg, Separator Deteriorated, Separator Impregnated with Neg Plate Material.
				410	5	3037	Cell Lost Capacity on Cycling But Came Back When Removed From Pack, So It Was Put Back On Cycling In Same Pack.

CELL TYPE: Gulton 20 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION	CRACKS	FAILURE ANALYSIS
73	25%	1.5	25°	396	3	1776	Low Volt Disch, Normal Volt Chg, Concave Side, Neg Ceramic Seal Broken, Lost 23.7 gm.
			25°	387	1	*6120	Low Volt Disch, Low Volt Chg, Lost 13.2 gm, Separator Completely Deteriorated, Neg Plate Material Migration, Pinpoint Penetration, Blistering on Pos Plates, High Pressure Bulge.
74	25%	3.0	25°	458	4	1184	Low Volt Disch, Low Volt Chg, Leaked, Lost 14.2 gm, Blistering on Pos Plates.
			25°	419	3	1302	Low Volt Disch, Normal Volt Chg, Leaked, Lost 21.9 gm.
			25°	440	2	1754	Low Volt Disch, Normal Volt Chg, Leaked Around Both Terminals, Ceramic Broken on Neg Terminal, Lost 18.0 gm, Neg Plate Material Penetrated Separator, Sides Concaved, Shorting Case to Bus.
87	40%	1.5	25°	468	1	163	Low Volt Disch, High Volt Chg, High Pres Bulge, Lost 8 gm.
			25°	388	2	208	Low Volt Disch, High Volt Chg, Lost 26.7 gm, Ceramic Short Around Pos Terminal.
			25°	394	3	627	Low Volt Disch, High Volt Chg, Lost 16.4 gm, High Pres Bulge, Deposit on Both Terminals, Ceramic Short Neg to Case.
			25°	454	4	627	Low Volt Disch, Low Volt Chg, Lost 21.6 gm, Deposit on Both Terminals, Sides Concave Hit Bus on Both Sides.
			25°	386	5	627	Low Volt Disch, Low Volt Chg, Lost 18.1 gm, High Pres Bulge, Burnt Separator 5th or 6th Neg Plate Near Top, Ceramic Short.

CELL TYPE: Gulton 20 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEMPERATURE	CELL NUMBER	POSITION IN PACK	CELL NO.	FAILURE ANALYSIS
88	40%	3.0	25°	422	2	151	Low Volt Disch, High Volt Chg, High Pres Bulge, Bottom Ceramic Leak, Lost 25 gm.
90	25%	1.5	25°	404	1	151	Low Volt Disch, High Volt Chg, High Pres Bulge, Bottom Ceramic Leak, Lost 25 gm.
				466	3	358	Low Volt Disch, High Volt Chg, High Pres Bulge, Lost 16.4 gm.
				429	5	358	Low Volt Disch, Low Volt Chg, Ceramic Short Around Pos Terminal.
				452	4	2824	Low Volt Disch, Low Volt Chg, Short Through Separator at Top of Plates, High Pres Bulge on Sides, High Pres, Separator Deteriorated.
91	25%	3.0	40°	457	5	2824	Low Volt Disch, Normal Volt Chg, Short Through Separator, Blistering on Pos Plate, High Pres Bulge on Sides, High Pres.
				378	3	4045	Normal Volt Disch, Went Dead on Chg During Cap Check, Ceramic Short, Separator Completely Deteriorated.
				395	4	*2862	Shorted Out Following Capacity Check, Leaked, Lost 6.8 gm, Deposit on Both Terminals, Both Ceramic Seals Broken, Separator Completely Deteriorated, Neg Plate Material Migration, Separator Very Wet, Plastic Wrap Burned, Ceramic Short.
101	15%	1.5	0°	435	2	3111	Low Volt Disch, High Volt Chg, Leaked, Lost 24.6 gm, High Pres Bulge, Separator Very Dry.
				407	5	3111	Low Volt Disch, High Volt Chg, Leaked, Lost 20.4 gm, Separator Very Dry.
			0°	438	4	3629	Low Volt Disch, High Volt Chg, Leaked, Lost 13.2 gm, High Pres Bulge, Sides Concave, Blistering on Pos Plates.

CELL TYPE: Gulton 20 Ampere-Hour

FAILURE ANALYSIS

Volt Fell Suddenly at End of Chg, Burn Spots at Busses, Concave Around Spots, End Neg Pushed Into Pos Tab.

Low Volt Disch, Normal Volt Chg, Walls Concave, Busses Shorted to Case, Lost 26.9 gm.

High Pres Bulge, Blisters on Pos Plate, Busses Shorted to Case.

Black Deposit on Outside on Neg Terminal, High Pres Bulge, Busses Shorted to Case, Blisters on Pos Plate, Burnt Spot on Separator.

PACK NUMBER	PERCENT OF DISCHARGE	CHARGE PERIOD (HOURS)	TEMPERATURE	CELL NUMBER	POSITION IN PACK	CELL NUMBER
102	15%	3.0	0°	449	2	135
115	25%	1.5	0°	490	3	2107
			0°	508	2	2203
			0°	467	4	2291

CELL TYPE: Could 20 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION	CRACKS	FAILURE ANALYSIS
98	25%	1.5	0°	77	5	3556	Low Volt Disch, Low Volt Chg, Separator Deteriorated, Neg Plate Material Penetrated Separator, Two Pos Plates Not Welded to Tabs.
104	25%	1.5	25°	69	1	2672	Low Volt Disch, Low Volt Chg, Shorted at Bottom of Pos Plate, Pos Grid Wire Penetrated Separator, Short at Top Between Pos Grid and Neg Tab, High Pressure.
			25°	R36	5	2826	Low Volt Disch, Low Volt Chg, Short Between Plates, Grid Wire Penetrated Separator, Pos Plate Material Between Plates, High Pressure.
			25°	5	3	2980	Low Volt Disch, Low Volt Chg, Separator Completely Deteriorated, Short Between Plates, High Pressure.
112	15%	1.5	40°	17	1	5005	Low Volt Disch, Low Volt Chg, Short Between Plates, Short About One Inch From Bottom of Plates, Separator Completely Deteriorated, High Pressure.
			40°	25	2	5005	Low Volt Disch, Low Volt Chg, Shorted Through Separator, Shorted on Bottom Corner of Plates, Separator Completely Deteriorated, High Pressure.
			40°	38	5	5213	Low Volt Disch, Low Volt Chg, Short at Top Corner of Plate Where Pos Tabs are Connected to Plates, Separator Deteriorated Allowing Plates to Come Together, Blistering on Pos Plates.
118	40%	1.5	25°	61	2	1747	Low Volt Disch, Low Volt Chg, Short at Bottom of Pos Plate, Grid Wires Penetrated Separator Where Tape Holds Plates Together, High Pressure.
			25°	R91	4	1963	Low Volt Disch, Low Volt Chg, Shorted at Bottom Corner of Pos Plates, Grid Wires Through Separator, Rough Grid Showing Through at Top and Bottom of Most Plates, High Pressure.
			25°	92	5	2937	Low Volt Disch, Low Volt Chg, Short Through Separator on Side of Plates, Pos Plate Material Penetrated Separator, High Pressure.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS
119	40%	3.0	25°	73	5	222	Normal Volt Disch, Low Volt Chg, Short Near Bottom of 5th or 6th Pos, No Obvious Cause.
			25°	80	2	1793	Low Volt Disch, Normal Volt Chg, Neg Plate Material Penetrated Separator, High Pressure, Blistering on Pos Plate.
			25°	86	3	1793	Low Volt Disch, Normal Volt Chg, Neg Plate Material Penetrated Separator, High Pressure, Blistering on Pos Plate.
122	25%	3.0	40°	16	2	801	Low Volt Disch, Low Volt Chg, Blistering on Pos Plates, Separator Deteriorated, Plate Material on Both Sides of Separator, High Pressure.
			40°	58	3	801	Low Volt Disch, Low Volt Chg, Blistering on Pos Plates, Separator Deteriorated, Plate Material on Both Sides of Separator, High Pressure.
			40°	18	5	983	Low Volt Disch, Low Volt Chg, Plate Material Penetrated Separator, Pos Plates Blistered, High Pressure.
126	25%	1.5	40°	9	3	1273	Low Volt Disch, Low Volt Chg, Shorted at Bottom Corner of Neg Plate, Grid Wire Penetrated Separator, Several Other Plates Had Grid Wires Sticking Out, High Pressure.
			40°	R29	4	1509	Low Volt Disch, Low Volt Chg, Shorted at Bottom Corner of Pos Plate, Grid Wire Penetrated Separator, Blistering on Pos Plates, Separator Deteriorated, High Pressure.
			40°	11	5	1569	Low Volt Disch, Low Volt Chg, Shorted on Side of Pos Plate, Grid Wire Penetrated Separator, High Pressure.

CELL TYPE: Culton 50 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CONTAINMENT TESTS	FAILURE ANALYSIS
95	25%	1.5	0°	109	3	2643	Shorted Out While Cycling, All Plates Shorted at Bottom Center, Separator Very Dry and Stiff From Heat, Blistering on Pos Plate.
			0°	107	5	2938	Shorted Out While Cycling, Short Between Plates at Center Near Bottom of Plates, Separator Dry, Small Amount of Neg Plate Material Migration on Separator.
			0°	115	1	3227	Low Volt Disch, High Volt Chg, Separator Impregnated with Neg Plate Material, Large Blisters on Pos Plate, One Neg Plate Stuck to Can.
123	15%	1.5	40°	119	2	1873	Low Volt Disch, Low Volt Chg, Separator Decomposed, Hot Spots Through Separator Shorted Out Several Plates, High Pres Bulge, Still Under Pressure When Opened.
			40°	118	3	1873	Went Dead During Shutdown, Separator Decomposed, Several Small Hot Spots on Each Plate, Outside Neg Plates Stuck to Case, High Pres Bulge, Deposit Around Ceramic Seal of Pos Terminal.
			40°	117	4	1873	Went Dead During Shutdown, Separator Decomposed, Neg Plate Stuck to Case, High Pres Bulge, Still Under Pressure When Opened.

CELL TYPE: Yardney 10 x YS-12

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CELL NUMBER	FAILURE ANALYSIS				
33	50%	24	40°	58	3	58	Leaked, Dried Out				
				126	2	126	Leaked, Dried Out				
				152	1	152	Leaked, Dried Out				
				197	8	197	Leaked, Dried Out				
				210	4	210	Leaked, Dried Out				
				210	10	210	Leaked, Dried Out				
				57	50%	24	0°	162	1	162	Leaked, Electrolyte Shorted Out Cell
								162	2	162	Leaked, Electrolyte Shorted Out Cell
								162	10	162	Leaked, Electrolyte Shorted Out Cell
								166	3	166	Leaked, Electrolyte Shorted Out Cell
166	4	166	Leaked, Electrolyte Shorted Out Cell								
166	5	166	Leaked, Electrolyte Shorted Out Cell								
166	6	166	Leaked, Electrolyte Shorted Out Cell								
166	7	166	Leaked, Electrolyte Shorted Out Cell								
166	8	166	Leaked, Electrolyte Shorted Out Cell								
166	9	166	Leaked, Electrolyte Shorted Out Cell								

CELL TYPE: Delco 25 Ampere-Hour

FAILURE ANALYSIS

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	REMARKS
75	40%	24	25°			32	Cell Blew-up, Pack Returned to Manufacturer
89	40%	24	25°			*80	Returned to Manufacturer for Analysis.
288	40%	3.0	25°			*120	Returned to Manufacturer for Analysis.



AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	ORBIT PERIOD (Hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	PRECONDITIONING		CAPACITY CHECKS AFTER 88-DAY INTERVALS							CYCLES TO PACK FAILURE				
					INITIAL	* (See Note)	FIRST 88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS		EIGHTH 88 DAYS			
G.E. 3 A.H.	63	1.5	15	0	3.48		3.18	3.12	3.05	3.03	3.05	3.05						
	64		25	0	3.50		3.38	3.70	3.38	3.35	3.35	3.42						
	15		25	25	4.00		3.38	2.93	2.33	1.95	1.47							
	16		40	25	4.00		2.75	2.10	1.55									5013
G.E. 3 A.H.	39		15	50/40	1.65	2.13 (719)	2.10	1.53	1.25	1.17	0.70							
	40		25	50/40	1.20	2.50 (1140)	0.88*	0.88										2507
	67	3	15	0	3.63		3.25	3.40	3.53	2.97	3.25							
	68		25	0	3.50		2.25	3.53	3.10	3.27	3.25							
G.E. 3 A.H.	19		25	25	3.93		3.78	3.18	3.15	3.00	2.78							
	20		40	25	3.78		3.00	2.35	2.07	1.83	2.00							
	43		15	50/40	1.77	2.63 (320)	2.20	1.61	1.65									2656
	44		25	50/40	1.10	2.00 (327)	1.35	1.19	1.15	1.10								
Gould 3.5 A.H.	11	1.5	15	0	3.60		4.00	3.33	3.41	3.21	3.35							
	52		25	0	3.72		3.85	3.52	3.18	3.30								
	3		25	25	4.00		2.92	2.92	2.25									4751
	4		40	25	3.94		3.38	2.77										2100
Gould 3.5 A.H.	27		15	50/40	1.53	2.63 (791)	2.07	1.45	1.90									4751
	28		25	50/40	1.55	2.07 (1034)	2.86											4751
	55	3	15	0	3.27		3.54	3.15	3.38	3.33	3.27							
	56		25	0	3.50		3.91	3.53	3.65	2.41	3.38							
Gould 3.5 A.H.	7		25	25	4.32		4.03	3.79	3.53	2.77	2.28							
	8		40	25	4.24		3.65	3.35	2.63									2194
	31		15	50/40	1.60	1.21 (320)	1.75	1.22	2.16									2194
	32		25	50/40	1.55	1.16 (1035)	1.44											975

\* Preconditioning at charge to 40° C. Number of cycles completed at 50° C is in parentheses.  
 \*\* Still at 50° C.

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	ORBIT PERIOD (Hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	PRECONDITIONING		CAPACITY CHECKS AFTER 88-DAY INTERVALS							CYCLES TO PACK FAILURE			
					INITIAL	* (See Note)	FIRST 88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS		EIGHTH 88 DAYS		
Sonotone 5 A.H.	49	1.5	15	0	5.45		5.54	5.50	4.96	4.79	4.71						
	50		25	0	5.04		4.96	4.58	4.75	3.79	3.67						
	1		25	25	5.42		3.67	2.33	2.88	2.79	2.21						
	2		40	25	6.42		4.38	4.17	3.25	3.00							
	25		15	50/40	3.08	3.63 (703)	2.25	1.83	2.04	1.17							
	26		25	50/40	3.17	3.17 (445)	2.75	2.93									3625
Sonotone 5 A.H.	53	3	15	0	5.67		5.79	5.67	5.42	5.33							
	54		25	0	4.91		3.96	3.96	4.13	3.96							
	5		25	25	5.71		4.58	3.04	2.04	2.13							
	6		40	25	5.83		4.50	3.29	3.25	2.92							
	29		15	50/40	3.33	4.92 (123)	2.75	2.38	2.42	2.08							
	30		25	50/40	3.75	3.50 (183)	1.88	2.88	2.38	1.67							
Gulton 6 A.H.	61	1.5	15	0	5.00		5.10	5.40	4.45	3.15							
	62		25	0	5.00		4.75	3.80	4.35	3.55							
	13		25	25	5.80		2.75	2.85	2.70								4021
	14		40	25	6.40		3.45										2086
	37		15	50/40	2.75	3.60 (239)	1.70	2.95	1.85	2.00							
	38		25	50/40	2.65	2.90 (114)	1.55										1377
Gulton 6 A.H.	65	3	15	0	4.50		5.45	5.35	5.15	4.50							
	66		25	0	4.25		5.00	3.50	2.50	3.80							
	17		25	25	5.80		3.65	3.45	2.50	2.30							2885
	18		40	25	4.55		4.95	3.16									1550
	41		15	50/40	2.75	4.55 (239)	2.05	1.63									
	42		25	50/40	2.60	3.80 (96)	2.15	2.10	2.35	1.85							1689

\* Preconditioning at change to 40° C. Number of cycles completed at 50° C is in parentheses.



AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	ORBIT PERIOD (Hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	PRECONDITIONING		CAPACITY CHECKS AFTER 88-DAY INTERVALS							CYCLES TO PACK FAILURE				
					INITIAL	* (See Note)	FIRST 88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS		EIGHTH 88 DAYS			
Gulton 20 A.H.	101	1.5	15	0	17.2		12.5	5.67									3631	
	115		25	0	17.7		11.2										2288	
	73		25	25	23.3		7.17	9.50	7.83	8.67							627	
	87		40	25	23.3													
	76		15	50/40	10.3	13.8 (172)	6.50	4.83	5.50	4.67							4045	
Gulton 20 A.H.	90		25	50/40	9.00	11.3 (65)	6.00	10.3	7.33*									
	108	3	15	0	16.7		18.8	25.2	20.3	19.5								
	116		25	0	21.7		20.7	21.8	19.3	17.5							1754	
	74		25	25	20.3		6.17	7.17									358	
	88		40	25	19.8													
Yardney 12 A.H.	77		15	50/40	9.50	12.7 (71)	7.33	5.33	4.83	5.33								
	91		25	50/40	9.17	10.3 (47)	6.67	6.67	7.67	6.83								
	77	24	50	0	13.8		8.60										166	
Gulton 6 A.H.	33		50	40	13.5		12.0										210	
	79	24	50	25	6.60		3.55	4.40	4.25									
G.E. 12 A.H.	93	24	50	40 ***	13.0		7.60	(40°C) 6.50										
	95	1.5	25	0	54.6		59.6	45.4									3227	

\* Preconditioning at change to 40° C. Number of cycles completed at 50° C is in parentheses.  
 \*\* Two cells only; pack failed during capacity check.  
 \*\*\* Changed from 25° to 40° C ambient after 173 cycles.

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	ORBIT PERIOD (Hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	INITIAL PRECONDI-TIONING	CAPACITY CHECKS AFTER 88-DAY INTERVALS									CYCLES TO PACK FAILURE		
						FIRST 88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS	EIGHTH 88 DAYS	NINTH 88 DAYS		TENTH 88 DAYS	
Gulston (Comm.) 4 A.H.	315	1.5	15	0	5.04	3.57	4.03										
	326		25	0	4.87	4.00	3.87										
	204		25	25	4.63	2.47	2.07										
	214		40	25	5.00	2.00	2.07										
	228		15	40	4.20	1.77	1.67										
	240		25	40	3.37	1.17	1.13										
Gulston 12 A.H.	216	1.5	15	0	14.0												
	301		25	0	14.2	14.5											
	227		25	25	14.1												
	296		40	25	13.3	4.70											
	78		15	40	6.80												
	290		25	40	11.4	5.40											
Gulston (HSI) 6 A.H.	213	1.5	25	0	7.30												
	218		40	25	6.90												
	238		25	40	5.00												

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MFR.	CAPACITY A. H.	PACK NO.	TEMP °C.	ORBIT DISCHARGE	PERIOD (HRS) CHARGE	PERCENT DEPTH OF DISCHARGE	PERCENT OF RECHARGE	CHARGE VOLTAGE LIMIT	CYCLES COVERED		CELLS REMAIN- ING IN PACK			
									INITIAL	FINAL	DIFFERENCE	INITIAL	FINAL	
G.E. (pages 43-51)	3	33	0	0.5	1.0	15	115	1.55	6876	7348	472	10	10	
		34	0	"	"	25	"	"	6774	7277	503	10	10	
		15	25	"	"	25	125	1.49	6872	7344	502	10	10	
		16	25	"	"	40	"	"		FAILED				
		37	40	"	"	15	160	1.45	6499	6971	472	7	7	
		40	40	"	"	25	"	"		FAILED				
		67	0	"	"	2.5	115	1.55	3295	3477	182	10	10	
		69	0	"	"	"	"	25	"	3268	3531	263	10	10
		19	25	"	"	"	125	1.49	3270	3458	188	10	10	
		20	25	"	"	40	"	"	3083	3346	263	10	10	
GOULD (pages 57-56)	3.5	43	40	"	"	15	160	1.45		FAILED				
		44	40	"	"	25	"	"	3032	3301	269	9	9	
		51	0	"	1.0	15	115	1.55	6893	7365	472	10	10	
		52	0	"	"	"	25	"	6854	7196	342	10	10	
		3	25	"	"	25	125	1.49		FAILED				
		4	25	"	"	40	"	"		FAILED				
		27	40	"	"	15	160	1.45		FAILED				
		28	40	"	"	25	"	"		FAILED				
		55	0	"	2.5	15	115	1.55	3295	3477	182	10	10	
		56	0	"	"	25	"	"	3220	3502	282	10	10	
7	25	"	"	25	125	1.49	3171	3319	148	8	8			
8	25	"	"	40	"	"		FAILED						
31	40	"	"	15	160	1.45		FAILED						
32	40	"	"	25	"	"		FAILED						

MFR.	CAPACITY A. H.	PACK NO.	TEMP. °C.	ORBIT DISCHARGE	PERCENT DEPTH OF DISCHARGE	PERCENT OF RECHARGE	CHARGE VOLTAGE LIMIT	CYCLES COVERED		CELLS REMAIN- ING IN PACK			
								INITIAL	FINAL	DIFFERENCE	INITIAL	FINAL	
SONOTONE (57-64)	5	49	0	0.5	15	115	1.55	6606	7052	446	9	9	
		50	0	"	25	"	"	6568	7039	471	10	10	
		1	25	"	25	125	"	1.49	6449	6935	476	8	8
		2	25	"	40	"	"	"	5748	6270	522	5	5
		25	40	"	15	160	"	1.15	6364	6697	333	10	9
		26	40	"	25	"	"	"		FAILED			
		53	0	"	15	115	"	1.55	3143	3394	251	10	10
		54	0	"	25	25	"	"	3173	3422	249	10	10
		5	25	"	25	125	"	1.47	3156	3407	251	9	9
		6	25	"	40	"	"	"	3077	3326	249	7	7
GULICH (68-14)	6	29	40	"	15	160	1.45	3061	3312	251	9	4	
		30	40	"	25	"	"	3031	3208	177	9	7	
		61	0	"	15	115	"	1.55	6001	6242	241	6	6
		62	0	"	25	"	"	"	6197	6718	521	7	7
		13	25	"	25	125	"	1.49		FAILED			
		14	25	"	40	"	"	"		FAILED			
		37	40	"	15	160	"	1.45	5305	5821	526	5	5
		38	40	"	25	"	"	"		FAILED			
		65	0	"	15	115	"	1.55	3275	3526	251	10	10
		66	0	"	25	25	"	"	2995	3244	249	5	5
		17	25	"	25	125	1.49		FAILED				
		18	25	"	40	"	"		FAILED				
		17	40	"	15	160	"	1.45		FAILED			
		30	40	"	25	"	"	"	2805	3061	256	6	6

MFR.	CAPACITY A. H.	PACK NO.	TEMP °C.	ORBIT DISCHARGE	PERIOD (HRS.) CHARGE	PERCENT DEPTH OF DISCHARGE	PERCENT OF RECHARGE	CHARGE VOLTAGE LIMIT	CYCLES COVERED		DIFFERENCE	CELLS REMAIN- ING IN PACK		
									INITIAL	FINAL		INITIAL	FINAL	
G. E. (pages 741-83)	12	110	0	0.5	1.0	15	115	1.55	6221	6747	526	5	5	
		124	0	"	"	25	"	"	5988	6514	526	5	5	
		82	25	"	"	25	125	1.49	6257	6783	526	5	5	
		96	25	"	"	40	"	"		FAILED		5	5	
		85	40	"	"	15	160	1.45	6082	6604	522			
		99	40	"	"	25	"	"		FAILED				
		111	0	"	2.5	15	115	1.55	3132	3431	299	5	5	
		125	0	"	"	25	"	"	3106	3355	249	5	5	
		83	25	"	"	25	125	1.49	3180	3429	249	5	5	
		97	25	"	"	40	"	"	3170	3419	249	5	5	
86	40	"	"	15	160	1.45	3080	3293	213	5	5			
100	40	"	"	15	"	"	2963	3151	188	5	5			
Gould (pages 841-89)	20	84	0	"	1.0	15	115	1.55	6171	6693	522	5	5	
		98	0	"	"	25	"	"	5950	6466	516	4	4	
		104	25	"	"	25	125	1.49		FAILED				
		118	25	"	"	40	"	"		FAILED				
		112	40	"	"	15	160	1.45		FAILED				
		126	40	"	"	25	"	"		FAILED				
		80	0	"	2.5	15	115	1.55	3108	3334	226	5	5	
		94	0	"	"	25	"	"	2954	3205	251	5	5	
		105	25	"	"	25	125	1.49	2936	3185	249	5	5	
		119	25	"	"	40	"	"		FAILED				
109	40	"	"	15	160	1.45	2938	3164	226	5	5			
120	40	"	"	25	"	"		FAILED						



MFR.	CAPACITY A. H.	PACK NO.	TEMP. °C.	ORBIT PERIOD (HRS.)		PERCENT DEPTH OF DISCHARGE	PERCENT OF RECHARGE	CHARGE VOLTAGE LIMIT	CYCLES COVERED		CELLS REMAIN- ING IN PACK		
				DISCHARGE	CHARGE				INITIAL	FINAL	INITIAL	FINAL	
YARDNEY	12	57	0	1.0	23.0	50	*	1.50					
		33	40	"	"	"	*	1.50					
GULTON (page 96)	6	79	25	1.0	23.0	50	300	1.49	317	352	3	3	
G.E. (page 97)	12	73	25	1.0	23.0	50	200	1.40	288	323	4	4	
GULTON (page 98)	50	95	0	0.5	1.0	25	115	1.55		FAILED			
		182	40	"	"	15	160	1.45		FAILED			
DELCO (page 5 98-99) (SPECIAL SEPARATOR) (NaOH) --	25	75	25	1.0	23.0	40	*	1.97		FAILED			
		89	25	"	"	"	*	"		FAILED			
		188	25	0.5	2.5	"	*	"	1	118	117	5	0
		188	25	"	"	"	*	"	1	188	187	5	5
DELCO (page 5 100)	40	275	25	1.0	23.0	25	*	1.97	115	132	3	0	

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4-20-64 (Rev. 7-7-64)  
 \*\* CHANGED TO 400. 1.45 1/2. ALL MORE AFTER 2/2/64

MFR.	CAPACITY A. H.	PACK NO.	TEMP °C.	ORBIT DISCHARGE	PERIOD (HRS) CHARGE	PERCENT DEPTH OF DISCHARGE	PERCENT OF RECHARGE	CHARGE VOLTAGE LIMIT	CYCLES COVERED		CELLS REMAIN- ING IN PACK		
									INITIAL	FINAL	DIFFERENCE	INITIAL	FINAL
GULTON (pages 101-106)	4	315	0	0.5	1.0	15	115	1.55	3354	3880	526	5	5
		326	0	"	"	25	"	"	3360	3882	522	5	5
		204	25	"	"	25	125	1.49	3177	3731	554	5	5
		214	25	"	"	40	"	"	2899	3421	522	5	5
		228	40	"	"	15	160	1.45	3166	3720	554	5	5
		240	40	"	"	25	"	"	3180	3734	554	5	5
		216	0	"	"	15	115	1.55	58	612	554	5	5
		201	0	"	"	25	115	1.55	1083	1559	476	5	5
GULTON (pages 107-112)	12	227	25	"	"	25	125	1.49	453	975	522	5	5
		226	25	"	"	10	125	1.49	1305	1781	476	5	5
		78	40	"	"	15	160	1.45	1017	1510	493	5	4
		290	40	"	"	25	"	"	1311	1782	471	5	5
		213	0	"	"	25	115	1.55	50	576	526	5	5
		218	25	"	"	40	125	1.49	56	578	522	5	5
		228	40	"	"	25	160	1.45	56	578	522	5	5
GULTON (pages 113-115)	(HST) 6												

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PACK NO. 63      DEPTH OF DISCHARGE 15      TEST TEMPERATURE 0 C  
 G.E. 3 A.H.      PERCENT OF RECHARGE 115      ORBIT PERIOD 90 MIN.

CYCLE NO.      PACK CURRENT  
 VOLTAGE 0.90

CELL VOLTAGES

1      2      3      4      5      6      7      8      9      10

6940.	12.38	.91	1.25	1.25	1.26	1.23	1.23	1.25	1.24	1.24	1.24	1.25	1.23	1.23	1.22
6971.	12.38	.91	1.24	1.24	1.24	1.22	1.22	1.23	1.22	1.22	1.22	1.24	1.24	1.22	1.22
7024.	12.42	.91	1.25	1.24	1.25	1.23	1.23	1.24	1.23	1.23	1.23	1.25	1.23	1.23	1.23
7090.	12.54	.90	1.26	1.26	1.27	1.25	1.25	1.26	1.25	1.25	1.25	1.27	1.25	1.25	1.25
7112.	12.52	.90	1.26	1.26	1.26	1.24	1.24	1.26	1.25	1.25	1.25	1.27	1.25	1.25	1.25
7142.	12.50	.90	1.26	1.26	1.26	1.24	1.24	1.26	1.25	1.25	1.25	1.26	1.25	1.25	1.24
7237.	12.58	.91	1.24	1.25	1.25	1.23	1.23	1.24	1.24	1.24	1.24	1.26	1.24	1.24	1.24
7251.	12.60	.91	1.25	1.25	1.25	1.23	1.23	1.24	1.24	1.24	1.24	1.26	1.24	1.24	1.24
7293.	12.55	.90	1.25	1.25	1.25	1.23	1.23	1.25	1.24	1.24	1.25	1.27	1.25	1.25	1.24
7319.	12.56	.90	1.25	1.25	1.25	1.23	1.23	1.25	1.24	1.24	1.24	1.26	1.24	1.24	1.24
7348.	12.55	.90	1.25	1.25	1.25	1.23	1.23	1.24	1.24	1.24	1.25	1.27	1.25	1.25	1.24

END OF  
DISCHARGE

6940.	15.56	.52	1.62	1.49	1.62	1.56	1.65	1.63	1.63	1.63	1.61	1.61	1.61	1.61	1.49
6971.	15.56	.24	1.60	1.47	1.60	1.54	1.63	1.61	1.61	1.61	1.50	1.60	1.60	1.46	1.49
7024.	15.56	.24	1.61	1.47	1.60	1.54	1.63	1.61	1.61	1.61	1.50	1.60	1.60	1.46	1.50
7090.	15.62	.21	1.60	1.51	1.59	1.55	1.60	1.58	1.58	1.54	1.60	1.60	1.60	1.53	1.55
7112.	15.61	.22	1.59	1.50	1.59	1.55	1.61	1.59	1.59	1.54	1.60	1.60	1.60	1.51	1.54
7142.	15.54	.21	1.59	1.49	1.58	1.55	1.61	1.59	1.53	1.53	1.60	1.60	1.60	1.50	1.53
7237.	15.77	.22	1.60	1.48	1.60	1.54	1.62	1.60	1.60	1.53	1.61	1.61	1.61	1.49	1.54
7251.	15.78	.23	1.59	1.48	1.59	1.54	1.62	1.60	1.60	1.53	1.61	1.61	1.61	1.48	1.54
7293.	15.76	.23	1.60	1.48	1.60	1.55	1.63	1.61	1.61	1.53	1.61	1.61	1.61	1.49	1.54
7319.	15.75	.23	1.60	1.48	1.59	1.55	1.63	1.61	1.61	1.53	1.61	1.60	1.60	1.48	1.54
7348.	15.75	.23	1.60	1.48	1.60	1.55	1.63	1.61	1.61	1.53	1.61	1.60	1.60	1.49	1.54

END OF  
CHARGE

PACK NO. 64  
 G.E. 3 A.H.  
 DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 115  
 TEST TEMPERATURE 0 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE					
			1	2	3	4	5	6		7	8	9	10	
6877.	12.10	1.51	1.21	1.22	1.23	1.23	1.23	1.22	1.23	1.23	1.23	1.22	1.22	1.20
6901.	12.11	1.51	1.23	1.24	1.25	1.25	1.24	1.24	1.24	1.24	1.24	1.25	1.23	1.21
6954.	12.13	1.51	1.22	1.22	1.22	1.22	1.22	1.21	1.21	1.21	1.21	1.22	1.21	1.20
7005.	12.12	1.51	1.22	1.23	1.22	1.22	1.22	1.21	1.21	1.21	1.21	1.22	1.22	1.20
7017.	12.46	1.51	1.26	1.26	1.25	1.25	1.25	1.24	1.24	1.24	1.25	1.26	1.25	1.23
7041.	12.36	1.51	1.25	1.25	1.24	1.24	1.24	1.24	1.23	1.23	1.24	1.25	1.24	1.22
7071.	12.26	1.51	1.23	1.23	1.23	1.23	1.23	1.23	1.22	1.22	1.22	1.23	1.22	1.21
7166.	12.33	1.51	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.21	1.22	1.23	1.22	1.21
7180.	12.32	1.52	1.22	1.22	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.23	1.22	1.20
7220.	12.33	1.51	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.24	1.22	1.21
7246.	12.29	1.51	1.22	1.23	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.23	1.22	1.21
7277.	12.29	1.51	1.22	1.23	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.23	1.22	1.20

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF CHARGE				
			1	2	3	4	5	6		7	8	9	10
6877.	15.44	.86	1.53	1.57	1.59	1.57	1.59	1.50	1.50	1.50	1.66	1.54	1.58
6901.	15.50	.34	1.54	1.59	1.60	1.59	1.60	1.50	1.50	1.50	1.67	1.55	1.60
6954.	15.43	.33	1.55	1.57	1.57	1.57	1.47	1.47	1.47	1.47	1.63	1.52	1.57
7005.	15.46	.32	1.55	1.58	1.58	1.58	1.48	1.48	1.48	1.48	1.64	1.53	1.58
7017.	15.93	.40	1.60	1.60	1.62	1.60	1.59	1.58	1.58	1.62	1.58	1.58	1.59
7041.	15.72	.33	1.58	1.58	1.58	1.58	1.54	1.54	1.53	1.62	1.56	1.56	1.57
7071.	15.63	.34	1.58	1.57	1.60	1.57	1.60	1.52	1.52	1.61	1.61	1.55	1.57
7166.	15.79	.36	1.56	1.56	1.59	1.57	1.59	1.51	1.51	1.64	1.55	1.55	1.57
7180.	15.76	.36	1.56	1.56	1.58	1.56	1.58	1.51	1.50	1.64	1.55	1.55	1.57
7220.	15.71	.37	1.56	1.56	1.58	1.57	1.58	1.51	1.50	1.64	1.56	1.56	1.57
7246.	15.73	.36	1.57	1.57	1.58	1.57	1.58	1.51	1.50	1.65	1.56	1.56	1.57
7277.	15.75	.35	1.57	1.57	1.58	1.58	1.51	1.51	1.50	1.65	1.56	1.56	1.58

PACK NO. 15      DEPTH OF DISCHARGE 25      TEST TEMPERATURE 25 C  
 G.E. 3 A.H.      PERCENT OF RECHARGE 125      ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES										END OF DISCHARGE			
			1	2	3	4	5	6	7	8	9	10				
6936.	11.52	1.52	1.17	1.17	1.14	1.13	1.12	1.17	1.14	1.13	1.15	1.14	1.15	1.14	1.15	1.14
6967.	11.55	1.52	1.17	1.17	1.15	1.14	1.13	1.13	1.17	1.14	1.13	1.15	1.15	1.15	1.15	1.15
7020.	11.67	1.52	1.18	1.18	1.16	1.16	1.15	1.15	1.18	1.16	1.15	1.16	1.16	1.16	1.16	1.16
7071.	11.68	1.52	1.19	1.19	1.17	1.16	1.16	1.16	1.19	1.16	1.16	1.16	1.17	1.16	1.16	1.16
7094.	11.53	1.52	1.18	1.18	1.16	1.14	1.14	1.14	1.18	1.14	1.14	1.14	1.16	1.16	1.15	1.15
7136.	11.61	1.51	1.19	1.19	1.17	1.16	1.15	1.15	1.19	1.15	1.14	1.14	1.16	1.16	1.16	1.16
7158.	11.50	1.51	1.18	1.18	1.16	1.14	1.13	1.13	1.18	1.14	1.12	1.12	1.16	1.16	1.15	1.15
7233.	11.77	1.52	1.18	1.18	1.16	1.15	1.15	1.15	1.19	1.15	1.15	1.15	1.17	1.16	1.16	1.16
7247.	11.80	1.52	1.18	1.19	1.16	1.15	1.15	1.15	1.19	1.16	1.15	1.15	1.16	1.16	1.16	1.16
7289.	11.71	1.51	1.18	1.19	1.16	1.15	1.15	1.15	1.19	1.15	1.15	1.15	1.18	1.16	1.16	1.16
7315.	11.96	1.52	1.19	1.19	1.18	1.18	1.18	1.18	1.20	1.19	1.20	1.19	1.18	1.17	1.17	1.17
7344.	11.78	1.52	1.19	1.19	1.16	1.16	1.16	1.16	1.19	1.17	1.17	1.17	1.17	1.17	1.17	1.16

6936.	14.75	.94	1.49	1.51	1.45	1.46	1.45	1.45	1.49	1.44	1.46	1.45	1.45	1.45	1.45	1.51
6967.	14.74	.94	1.48	1.50	1.44	1.45	1.45	1.45	1.48	1.44	1.45	1.45	1.45	1.45	1.45	1.50
7020.	14.76	.94	1.50	1.51	1.45	1.46	1.46	1.46	1.49	1.44	1.46	1.46	1.45	1.45	1.45	1.51
7071.	14.79	.94	1.50	1.52	1.45	1.47	1.47	1.46	1.50	1.45	1.47	1.47	1.46	1.46	1.46	1.52
7094.	14.78	.94	1.50	1.51	1.45	1.46	1.46	1.46	1.49	1.45	1.47	1.47	1.46	1.46	1.46	1.52
7136.	14.79	.93	1.50	1.52	1.46	1.47	1.47	1.46	1.50	1.45	1.47	1.47	1.46	1.46	1.46	1.53
7158.	14.79	.93	1.50	1.52	1.46	1.47	1.47	1.46	1.50	1.45	1.47	1.47	1.46	1.46	1.46	1.52
7233.	14.88	.94	1.48	1.50	1.44	1.45	1.45	1.44	1.50	1.44	1.40	1.40	1.45	1.45	1.45	1.52
7247.	14.84	.94	1.48	1.50	1.43	1.45	1.45	1.44	1.49	1.44	1.46	1.46	1.44	1.44	1.44	1.50
7289.	14.93	.94	1.50	1.52	1.45	1.46	1.46	1.45	1.51	1.45	1.47	1.47	1.48	1.48	1.48	1.52
7315.	14.95	.94	1.49	1.51	1.46	1.47	1.47	1.46	1.51	1.45	1.48	1.48	1.47	1.47	1.47	1.52
7344.	14.90	.94	1.49	1.52	1.45	1.46	1.46	1.45	1.51	1.45	1.48	1.48	1.46	1.46	1.46	1.52

PACK NO. 39 G.E. 3 A.H. DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 160 TEST TEMPERATURE 40 C ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE			
			1	2	3	4	5				
6563.	8.12	.90	1.10	.00	1.15	1.15	1.16	.00	1.15	1.15	1.17
6594.	8.05	.90	1.11	.00	1.17	1.17	1.17	.00	.00	1.13	1.14
6647.	8.15	.90	1.13	.00	1.17	1.16	1.18	.00	.00	1.17	1.17
6698.	8.22	.89	1.16	.00	1.19	1.18	1.18	.00	.00	1.17	1.18
6721.	8.14	.89	1.15	.00	1.18	1.16	1.18	.00	.00	1.16	1.16
6763.	8.11	.90	1.12	.00	1.18	1.17	1.18	.00	.00	1.15	1.17
6785.	8.00	.90	1.09	.00	1.17	1.15	1.16	.00	.00	1.14	1.17
6810.	7.89	.90	1.07	.00	1.16	1.16	1.16	.00	.00	1.15	1.17
6860.	8.40	.90	1.16	.00	1.20	1.19	1.19	.00	.00	1.18	1.20
6874.	8.04	.90	1.01	.00	1.16	1.16	1.16	.00	.00	1.13	1.15
6916.	7.89	.90	.92	.00	1.15	1.14	1.00	.00	.00	1.15	1.17
6942.	7.94	.90	.96	.00	1.15	1.13	1.16	.00	.00	1.14	1.17
6971.	7.88	.90	.90	.00	1.16	1.15	1.16	.00	.00	1.16	1.16
6563.	9.99	.72	1.42	.00	1.43	1.43	1.44	.00	.00	1.43	1.43
6594.	9.97	.73	1.41	.00	1.42	1.42	1.42	.00	.00	1.41	1.41
6647.	9.98	.73	1.42	.00	1.42	1.42	1.43	.00	.00	1.42	1.42
6698.	10.00	.73	1.43	.00	1.43	1.43	1.44	.00	.00	1.42	1.43
6721.	10.01	.74	1.43	.00	1.43	1.42	1.43	.00	.00	1.42	1.43
6763.	9.97	.73	1.43	.00	1.43	1.42	1.43	.00	.00	1.42	1.43
6785.	9.99	.73	1.43	.00	1.43	1.42	1.43	.00	.00	1.42	1.43
6810.	9.87	.73	1.41	.00	1.42	1.42	1.42	.00	.00	1.43	1.43
6860.	10.12	.73	1.42	.00	1.43	1.42	1.42	.00	.00	1.42	1.43
6874.	10.05	.73	1.42	.00	1.41	1.41	1.42	.00	.00	1.42	1.42
6916.	10.07	.73	1.43	.00	1.42	1.41	1.43	.00	.00	1.43	1.43
6942.	10.06	.73	1.42	.00	1.42	1.42	1.43	.00	.00	1.43	1.42
6971.	10.07	.73	1.43	.00	1.42	1.43	1.43	.00	.00	1.43	1.44

END OF CHARGE

PACK NO. 67  
 G.E. 3 A.H.

DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 3 HOURS

CYCLE PACK CURRENT  
 NO. VOLTAGE 0.90

CELL VOLTAGES

10

CYCLE NO.	PACK VOLTAGE 0.90	1	2	3	4	5	6	7	8	9	10	END OF DISCHARGE
3331.	12.43	.91	1.26	1.25	1.26	1.26	1.25	1.24	1.24	1.23	1.22	
3365.	12.39	.91	1.24	1.23	1.24	1.24	1.24	1.24	1.25	1.23	1.23	
3405.	12.43	.90	1.25	1.24	1.25	1.24	1.24	1.24	1.25	1.23	1.24	
3437.	12.44	.91	1.25	1.24	1.25	1.25	1.25	1.25	1.26	1.23	1.24	

CYCLE NO.	PACK VOLTAGE 0.90	1	2	3	4	5	6	7	8	9	10	END OF CHARGE
3331.	15.47	.21	1.59	1.47	1.60	1.60	1.54	1.54	1.49	1.59	1.54	
3365.	15.46	.08	1.59	1.47	1.59	1.60	1.56	1.55	1.51	1.58	1.55	
3405.	15.66	.09	1.61	1.49	1.61	1.62	1.59	1.58	1.53	1.60	1.57	
3437.	15.71	.09	1.62	1.50	1.61	1.63	1.59	1.58	1.55	1.60	1.58	

PACK NO. 68  
 G.E. 3 A.H.  
 DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 115  
 TEST TEMPERATURE 0 C  
 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE							
			1	2	3	4	5								
3299.	12.09	1.51	1.23	1.24	1.24	1.24	1.24	1.23	1.24	1.23	1.22	1.22	1.22	1.20	1.20
3338.	12.13	1.51	1.19	1.20	1.22	1.23	1.23	1.23	1.23	1.23	1.23	1.24	1.24	1.22	1.23
3373.	12.03	1.51	1.19	1.20	1.21	1.21	1.21	1.21	1.21	1.20	1.21	1.21	1.21	1.21	1.20
3413.	12.03	1.51	1.20	1.20	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.22	1.19	1.20
3442.	12.01	1.51	1.20	1.20	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.19	1.20
3531.	12.40	1.50	1.22	1.23	1.23	1.24	1.24	1.23	1.24	1.24	1.24	1.24	1.25	1.24	1.23
3299.	15.68	.34	1.60	1.62	1.58	1.61	1.61	1.61	1.60	1.60	1.48	1.64	1.64	1.41	1.47
3338.	15.46	.13	1.60	1.62	1.55	1.59	1.59	1.59	1.58	1.47	1.47	1.62	1.62	1.40	1.45
3373.	15.41	.11	1.60	1.62	1.54	1.59	1.59	1.58	1.46	1.46	1.62	1.62	1.39	1.45	1.45
3413.	15.48	.11	1.60	1.62	1.55	1.60	1.60	1.59	1.47	1.47	1.62	1.62	1.39	1.45	1.45
3442.	15.47	.12	1.60	1.62	1.54	1.60	1.60	1.59	1.46	1.46	1.62	1.62	1.39	1.45	1.45
3531.	15.65	.14	1.59	1.59	1.53	1.59	1.56	1.56	1.51	1.51	1.60	1.60	1.50	1.50	1.50

PACK NO. 19  
G.E. 3 A.H.  
DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 125  
TEST TEMPERATURE 25 C  
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES										END OF DISCHARGE			
			1	2	3	4	5	6	7	8	9	10				
3306.	12.17	1.51	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.20	1.20	1.21	1.21	1.20	1.21	END OF DISCHARGE
3340.	12.11	1.51	1.21	1.21	1.21	1.22	1.22	1.21	1.21	1.21	1.21	1.22	1.22	1.20	1.20	END OF DISCHARGE
3380.	12.13	1.51	1.22	1.22	1.22	1.22	1.22	1.22	1.21	1.21	1.21	1.22	1.22	1.21	1.20	END OF DISCHARGE
3412.	12.12	1.51	1.22	1.22	1.22	1.22	1.22	1.22	1.21	1.21	1.21	1.22	1.22	1.21	1.21	END OF DISCHARGE
3458.	12.36	1.52	1.22	1.22	1.21	1.22	1.22	1.22	1.23	1.23	1.22	1.23	1.23	1.22	1.22	END OF DISCHARGE
3306.	14.92	.38	1.48	1.47	1.47	1.47	1.47	1.47	1.47	1.53	1.46	1.46	1.52	1.46	1.54	END OF CHARGE
3340.	14.93	.38	1.48	1.48	1.47	1.48	1.48	1.47	1.47	1.53	1.46	1.46	1.53	1.46	1.54	END OF CHARGE
3380.	14.98	.38	1.49	1.48	1.48	1.48	1.49	1.48	1.48	1.54	1.47	1.47	1.54	1.47	1.55	END OF CHARGE
3412.	14.98	.38	1.49	1.48	1.48	1.48	1.49	1.48	1.48	1.54	1.47	1.47	1.54	1.47	1.55	END OF CHARGE
3458.	14.78	.37	1.45	1.45	1.44	1.43	1.43	1.44	1.44	1.50	1.44	1.44	1.49	1.44	1.50	END OF CHARGE

PACK NO. 20 DEPTH OF DISCHARGE 40 TEST TEMPERATURE 25 C  
 G.E. 3 A.H. PERCENT OF RECHARGE 125 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE					
			1	2	3	4	5	6		7	8	9	10	
3114.	11.14	2.39	1.16	1.12	1.10	1.10	1.10	1.08	1.11	1.12	1.10	1.10	1.14	1.12
3153.	11.20	2.39	1.16	1.12	1.10	1.10	1.10	1.12	1.11	1.12	1.10	1.10	1.14	1.12
3188.	11.05	2.40	1.16	1.10	1.08	1.09	1.09	1.10	1.09	1.10	1.09	1.09	1.13	1.11
3232.	11.30	2.41	1.17	1.13	1.15	1.13	1.13	1.12	1.14	1.13	1.11	1.11	1.15	1.12
3303.	11.09	2.43	1.14	1.09	1.08	1.08	1.08	1.02	1.11	1.10	1.08	1.08	1.14	1.11
3346.	11.15	2.42	1.16	1.11	1.09	1.10	1.10	1.03	1.11	1.12	1.11	1.11	1.15	1.13
3114.	14.86	.60	1.49	1.48	1.47	1.47	1.47	1.46	1.49	1.49	1.47	1.47	1.51	1.50
3153.	14.89	.56	1.50	1.48	1.47	1.47	1.47	1.47	1.49	1.49	1.47	1.47	1.51	1.50
3188.	14.90	.56	1.51	1.49	1.47	1.48	1.47	1.47	1.49	1.50	1.48	1.48	1.52	1.50
3232.	14.79	.60	1.49	1.48	1.47	1.47	1.47	1.46	1.49	1.49	1.47	1.47	1.50	1.49
3303.	14.94	.61	1.48	1.47	1.45	1.46	1.46	1.44	1.49	1.49	1.48	1.48	1.50	1.49
3346.	14.98	.55	1.50	1.48	1.46	1.47	1.47	1.45	1.49	1.50	1.48	1.48	1.52	1.51

PACK NO. 44  
G.E. 3 A.H.

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE					
			1	2	3	4	5	6		7	8	9	10	
3063.	9.99	1.49	1.09	1.12	1.10	1.13	1.11	.00	1.14	1.12	1.12	1.12	1.08	
3118.	10.21	1.51	1.12	1.15	1.13	1.15	1.14	.00	1.15	1.13	1.13	1.13	1.10	
3158.	10.13	1.51	1.11	1.15	1.12	1.15	1.13	.00	1.15	1.13	1.13	1.13	1.10	
3187.	10.08	1.51	1.12	1.14	1.12	1.15	1.13	.00	1.15	1.12	1.12	1.13	1.08	
3258.	10.11	1.50	1.09	1.13	1.09	1.13	1.11	.00	1.14	1.11	1.11	1.12	1.06	
3301.	10.12	1.51	1.11	1.14	1.10	1.14	1.12	.00	1.15	1.12	1.12	1.13	1.07	
3063.	13.00	.48	1.40	1.45	1.42	1.43	1.42	.00	1.44	1.48	1.48	1.43	1.45	
3118.	12.91	.49	1.43	1.46	1.44	1.43	1.43	.00	1.43	1.46	1.46	1.41	1.44	
3158.	12.81	.47	1.42	1.45	1.43	1.42	1.42	.00	1.42	1.45	1.45	1.41	1.42	
3187.	12.97	.47	1.44	1.47	1.45	1.43	1.43	.00	1.44	1.46	1.46	1.42	1.44	
3258.	13.08	.48	1.42	1.47	1.43	1.42	1.41	.00	1.43	1.47	1.47	1.41	1.44	
3301.	13.01	.41	1.42	1.47	1.43	1.42	1.42	.00	1.43	1.47	1.47	1.42	1.44	

PACK NO. 51      DEPTH OF DISCHARGE 15      TEST TEMPERATURE 0 C  
 GOULD 3.5 A.H.      PERCENT OF RECHARGE 115      ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE					
			1	2	3	4	5	6		7	8	9	10	
6957	12.42	1.06	1.24	1.23	1.26	1.25	1.26	1.26	1.26	1.26	1.26	1.26	1.23	1.23
6988	12.40	1.06	1.25	1.22	1.24	1.23	1.24	1.23	1.23	1.23	1.23	1.23	1.20	1.22
7041	12.43	1.06	1.25	1.23	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.21	1.23
7107	12.56	1.05	1.27	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
7129	12.55	1.05	1.27	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.24
7159	12.54	1.05	1.27	1.24	1.25	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.25	1.23
7201	12.40	1.05	1.26	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.25	1.23
7254	12.57	1.06	1.25	1.23	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.23	1.22
7268	12.61	1.06	1.25	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.22
7310	12.53	1.07	1.25	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.22
7336	12.50	1.06	1.25	1.23	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
7365	12.49	1.07	1.25	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.22	1.22

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF CHARGE					
			1	2	3	4	5	6		7	8	9	10	
6957	15.35	.60	1.58	1.59	1.60	1.49	1.65	1.56	1.56	1.57	1.42	1.42	1.43	1.43
6988	15.36	.53	1.55	1.56	1.57	1.46	1.63	1.54	1.54	1.57	1.42	1.42	1.44	1.44
7041	15.36	.54	1.56	1.57	1.58	1.45	1.64	1.55	1.55	1.57	1.42	1.42	1.44	1.44
7107	15.44	.43	1.56	1.57	1.59	1.44	1.66	1.56	1.56	1.59	1.45	1.45	1.49	1.49
7129	15.41	.49	1.57	1.58	1.59	1.45	1.63	1.56	1.56	1.59	1.45	1.45	1.45	1.45
7159	15.39	.53	1.57	1.58	1.59	1.45	1.62	1.56	1.56	1.59	1.46	1.46	1.45	1.45
7201	15.26	.56	1.55	1.57	1.59	1.44	1.65	1.58	1.58	1.60	1.46	1.46	1.43	1.43
7254	15.54	.54	1.56	1.57	1.58	1.43	1.64	1.56	1.56	1.60	1.44	1.44	1.43	1.43
7268	15.54	.55	1.56	1.58	1.58	1.44	1.63	1.56	1.56	1.59	1.43	1.43	1.44	1.44
7310	15.49	.51	1.56	1.57	1.58	1.44	1.64	1.56	1.56	1.60	1.44	1.44	1.44	1.44
7336	15.43	.50	1.55	1.57	1.57	1.43	1.63	1.55	1.55	1.59	1.43	1.43	1.43	1.43
7365	15.44	.49	1.55	1.57	1.58	1.44	1.63	1.56	1.56	1.59	1.43	1.43	1.43	1.43

PACK NO. 52  
 GOULD 3.5 A.H.  
 DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 115  
 TEST TEMPERATURE 0 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES										END OF DISCHARGE		
			1	2	3	4	5	6	7	8	9	10			
6957.	11.78	1.76	1.22	1.21	1.22	1.21	1.22	1.22	1.21	1.22	1.22	1.20	1.24	1.21	.89
6981.	11.26	1.76	1.23	1.22	1.25	1.23	1.24	1.23	1.24	1.23	1.23	1.21	1.25	1.22	.37
6991.	10.73	1.74	1.22	1.20	1.21	1.19	1.20	1.20	1.20	1.20	1.20	1.17	1.22	1.19	.11
7130.	10.95	1.75	1.20	1.18	1.20	1.19	1.20	1.20	1.20	1.21	1.21	1.19	1.22	1.19	.01
7170.	10.97	1.75	1.21	1.20	1.20	1.20	1.21	1.21	1.21	1.21	1.21	1.19	1.23	1.20	.01
7196.	10.92	1.75	1.21	1.19	1.19	1.20	1.21	1.21	1.21	1.20	1.20	1.19	1.22	1.19	.01
		1.00													
6957.	15.38	.66	1.57	1.59	1.50	1.60	1.59	1.59	1.59	1.59	1.53	1.57	1.54	1.54	1.43
6981.	15.45	.66	1.56	1.58	1.52	1.61	1.59	1.60	1.60	1.54	1.54	1.58	1.55	1.44	1.44
6991.	15.40	.65	1.56	1.59	1.50	1.59	1.57	1.57	1.57	1.51	1.51	1.54	1.51	1.42	1.42
7130.	14.05	.64	1.57	1.55	1.47	1.59	1.56	1.58	1.58	1.50	1.50	1.55	1.50	1.50	.01
7170.	14.00	.66	1.57	1.58	1.47	1.59	1.57	1.58	1.58	1.51	1.51	1.54	1.49	1.49	.00
7196.	14.01	.67	1.57	1.57	1.46	1.59	1.57	1.58	1.58	1.52	1.52	1.53	1.49	1.49	.01

PACK NO. 55 DEPTH OF DISCHARGE 15 TEST TEMPERATURE 0 C  
GOULD 3.5 A.H. PERCENT OF RECHARGE 115 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES										END OF DISCHARGE			
			1	2	3	4	5	6	7	8	9	10				
3331.	12.59	1.06	1.25	1.26	1.26	1.24	1.25	1.25	1.24	1.24	1.25	1.25	1.25	1.24	1.24	1.25
3365.	12.50	1.06	1.25	1.25	1.25	1.24	1.25	1.25	1.24	1.24	1.24	1.26	1.26	1.24	1.24	1.24
3405.	12.47	1.06	1.25	1.25	1.25	1.24	1.25	1.25	1.24	1.24	1.25	1.25	1.25	1.24	1.24	1.24
3437.	12.49	1.06	1.26	1.26	1.26	1.25	1.25	1.25	1.24	1.24	1.26	1.26	1.26	1.25	1.25	1.25
3477.	12.35	1.05	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.27	1.27	1.25	1.25	1.25
		.24														
3331.	15.37	.25	1.54	1.53	1.53	1.54	1.54	1.54	1.53	1.53	1.53	1.52	1.52	1.54	1.52	1.52
3365.	15.37	.24	1.54	1.53	1.54	1.54	1.54	1.54	1.53	1.53	1.53	1.53	1.53	1.55	1.52	1.52
3405.	15.26	.20	1.53	1.52	1.53	1.53	1.53	1.54	1.52	1.52	1.52	1.52	1.52	1.54	1.51	1.51
3437.	15.39	.24	1.55	1.54	1.54	1.55	1.55	1.55	1.54	1.54	1.53	1.53	1.53	1.56	1.53	1.52
3477.	15.08	.18	1.52	1.52	1.52	1.53	1.53	1.54	1.54	1.54	1.52	1.52	1.52	1.55	1.52	1.50

PACK NO. 56  
 GOULD 3.5 A.H.

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 3 HOURS

CYCLE PACK CURRENT  
 NO. VOLTAGE 1.75

CELL VOLTAGES

END OF  
 DISCHARGE

END OF  
 CHARGE

	1	2	3	4	5	6	7	8	9	10	
3273.	1.23	1.24	1.24	1.24	1.24	1.22	1.23	1.23	1.21	1.21	1.21
3312.	1.19	1.20	1.21	1.21	1.22	1.21	1.22	1.23	1.22	1.22	1.22
3347.	1.21	1.21	1.21	1.21	1.21	1.20	1.21	1.22	1.20	1.20	1.20
3385.	1.23	1.23	1.24	1.24	1.23	1.21	1.23	1.24	1.22	1.22	1.23
3413.	1.21	1.21	1.21	1.22	1.21	1.20	1.21	1.22	1.20	1.20	1.21
3502.	1.22	1.23	1.23	1.24	1.23	1.23	1.23	1.25	1.22	1.22	1.23
40											
3273.	1.51	1.51	1.52	1.53	1.52	1.52	1.53	1.55	1.53	1.53	1.53
3312.	1.55	1.55	1.55	1.56	1.54	1.53	1.54	1.54	1.52	1.51	1.51
3347.	1.55	1.55	1.55	1.57	1.55	1.54	1.55	1.56	1.54	1.53	1.53
3385.	1.55	1.55	1.58	1.66	1.55	1.54	1.58	1.56	1.54	1.54	1.54
3413.	1.55	1.55	1.58	1.63	1.55	1.54	1.58	1.56	1.54	1.54	1.54
3502.	1.54	1.55	1.60	1.59	1.56	1.55	1.58	1.57	1.55	1.55	1.56

BACK NO. 9:5 A.H. PERCENT OF DISCHARGE 25 TEST TEMPERATURE 25 C  
 GOULD 3:5 A.H. ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE					
			1	2	3	4	5	6		7	8	9	10	
3167.	9.39	1.74	.00	1.20	1.19	1.16	1.06	1.19	1.20	1.20	1.20	1.20	1.20	1.20
3201.	9.23	1.74	.00	1.20	1.19	1.15	.95	1.18	1.20	1.20	1.20	1.20	1.19	1.19
3241.	9.28	1.75	.00	1.20	1.19	1.16	.92	1.18	1.22	1.21	1.21	1.20	1.20	1.20
3273.	9.23	1.75	.00	1.20	1.19	1.15	.90	1.19	1.21	1.21	1.21	1.20	1.20	1.20
3319.	9.37	1.75	.00	1.19	1.18	1.13	.94	1.18	1.21	1.21	1.21	1.20	1.20	1.20
3167.	11.71	.44	.00	1.47	1.46	1.46	1.41	1.48	1.47	1.46	1.46	1.45	1.45	1.45
3201.	11.73	.44	.00	1.48	1.47	1.45	1.42	1.48	1.48	1.46	1.46	1.46	1.46	1.46
3241.	11.74	.44	.00	1.48	1.47	1.45	1.43	1.48	1.49	1.46	1.46	1.46	1.46	1.46
3273.	11.75	.44	.00	1.48	1.47	1.45	1.44	1.48	1.49	1.47	1.47	1.46	1.46	1.46
3319.	11.67	.43	.00	1.45	1.45	1.42	1.42	1.45	1.46	1.45	1.45	1.45	1.45	1.45

PACK NO. 49  
SONOTONE 5 A.H.

DEPTH OF DISCHARGE 15  
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
ORBIT PERIOD 90 MIN.

CYCLE NO.  
PACK VOLTAGE 1.50  
CURRENT 1.50

CELL VOLTAGES  
1 2 3 4 5 6 7 8 9 10

END OF DISCHARGE

END OF CHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT	1	2	3	4	5	6	7	8	9	10
6660.	11.06	1.52	1.22	1.22	1.23	1.21	1.21	1.22	1.23	1.24	.00	1.22
6704.	10.95	1.52	1.18	1.19	1.20	1.18	1.18	1.20	1.22	1.23	.00	1.22
6715.	10.91	1.52	1.19	1.20	1.18	1.20	1.22	1.23	1.24	1.25	.00	1.22
6758.	10.97	1.52	1.22	1.22	1.17	1.21	1.22	1.23	1.24	1.25	.00	1.23
6786.	10.95	1.50	1.22	1.16	1.17	1.22	1.23	1.24	1.25	1.24	.00	1.24
6810.	10.92	1.50	1.22	1.22	1.16	1.21	1.22	1.23	1.24	1.25	.00	1.23
6848.	10.94	1.49	1.22	1.22	1.15	1.21	1.22	1.23	1.24	1.25	.00	1.23
6874.	10.89	1.50	1.22	1.22	1.14	1.21	1.22	1.22	1.24	1.25	.00	1.23
6953.	11.24	1.52	1.22	1.23	1.17	1.22	1.23	1.25	1.26	1.27	.00	1.24
6993.	11.14	1.50	1.23	1.23	1.14	1.22	1.23	1.25	1.26	1.27	.00	1.25
7021.	11.12	1.50	1.22	1.23	1.13	1.22	1.22	1.24	1.25	1.27	.00	1.24
7052.	11.11	1.50	1.22	1.23	1.11	1.22	1.22	1.24	1.25	1.27	.00	1.24

6660.	13.92	.86	1.52	1.51	1.54	1.53	1.52	1.55	1.53	1.55	.00	1.53
6704.	13.95	.41	1.51	1.54	1.54	1.50	1.50	1.67	1.52	1.56	.00	1.58
6715.	13.82	.53	1.53	1.54	1.44	1.55	1.53	1.65	1.56	1.58	.00	1.53
6758.	13.80	.55	1.55	1.54	1.43	1.55	1.53	1.60	1.55	1.57	.00	1.53
6786.	13.78	.56	1.55	1.52	1.42	1.56	1.54	1.61	1.55	1.55	.00	1.53
6810.	13.80	.56	1.55	1.54	1.42	1.55	1.53	1.60	1.54	1.57	.00	1.53
6848.	13.81	.56	1.55	1.54	1.42	1.55	1.53	1.60	1.54	1.56	.00	1.52
6874.	13.81	.54	1.55	1.54	1.42	1.55	1.53	1.61	1.55	1.57	.00	1.53
6953.	14.12	.57	1.56	1.55	1.39	1.57	1.54	1.59	1.57	1.61	.00	1.55
6993.	14.08	.58	1.57	1.56	1.41	1.58	1.55	1.61	1.57	1.60	.00	1.55
7021.	14.08	.61	1.56	1.56	1.41	1.57	1.54	1.61	1.56	1.60	.00	1.55
7052.	14.09	.61	1.56	1.56	1.41	1.58	1.55	1.60	1.56	1.59	.00	1.54

PACK NO. 50      DEPTH OF DISCHARGE 25      TEST TEMPERATURE 0 C  
 SONOTONE 5 A.H.      PERCENT OF RECHARGE 115      ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE				
			1	2	3	4	5	6		7	8	9	10
6618.	11.89	2.50	1.14	1.19	1.16	1.14	1.14	1.19	1.19	1.21	1.20	1.20	1.20
6663.	11.82	2.50	1.14	1.20	1.18	1.15	1.20	1.20	1.20	1.21	1.19	1.19	1.19
6711.	11.78	2.50	1.14	1.20	1.17	1.14	1.20	1.20	1.20	1.21	1.19	1.19	1.19
6758.	11.77	2.49	1.14	1.13	1.19	1.16	1.17	1.21	1.21	1.21	1.21	1.21	1.20
6803.	11.93	2.50	1.15	1.21	1.19	1.16	1.17	1.22	1.22	1.22	1.21	1.21	1.20
6867.	11.67	2.50	1.12	1.19	1.17	1.14	1.15	1.21	1.21	1.22	1.20	1.20	1.18
6907.	11.66	2.49	1.13	1.20	1.18	1.15	1.15	1.21	1.20	1.22	1.21	1.19	1.19
6942.	11.88	2.51	1.12	1.19	1.16	1.13	1.14	1.20	1.20	1.21	1.19	1.19	1.18
6986.	11.83	2.50	1.12	1.20	1.16	1.13	1.14	1.20	1.20	1.22	1.20	1.19	1.19
7010.	11.88	2.51	1.13	1.20	1.17	1.14	1.14	1.20	1.20	1.22	1.20	1.19	1.19
7039.	11.85	2.50	1.13	1.20	1.17	1.14	1.15	1.20	1.20	1.22	1.20	1.19	1.19

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CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF CHARGE				
			1	2	3	4	5	6		7	8	9	10
6618.	15.70	1.44	1.55	1.50	1.55	1.54	1.56	1.56	1.50	1.59	1.51	1.51	1.69
6663.	15.66	.75	1.56	1.51	1.57	1.56	1.57	1.57	1.50	1.58	1.51	1.51	1.68
6711.	15.68	.76	1.56	1.51	1.57	1.56	1.58	1.56	1.51	1.59	1.51	1.51	1.69
6758.	15.65	.78	1.57	1.48	1.58	1.57	1.59	1.57	1.52	1.57	1.53	1.53	1.71
6803.	15.47	.61	1.55	1.52	1.55	1.56	1.56	1.55	1.51	1.58	1.51	1.51	1.58
6867.	15.33	.66	1.56	1.49	1.55	1.55	1.56	1.55	1.48	1.57	1.50	1.50	1.66
6907.	15.32	.66	1.58	1.47	1.56	1.56	1.57	1.56	1.49	1.57	1.51	1.51	1.68
6942.	15.53	.69	1.54	1.48	1.54	1.53	1.55	1.53	1.47	1.56	1.48	1.48	1.66
6986.	15.57	.68	1.55	1.49	1.55	1.54	1.56	1.55	1.49	1.57	1.50	1.50	1.68
7010.	15.58	.68	1.55	1.49	1.55	1.54	1.55	1.54	1.49	1.57	1.50	1.50	1.68
7039.	15.59	.67	1.55	1.49	1.55	1.54	1.56	1.55	1.49	1.57	1.50	1.50	1.68

PACK NO. 1 TEST TEMPERATURE 25 C  
 SONOTONE 5 A.H. ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT 2.50	DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 125					CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	6	7	8	9	10	
6503.	8.89	2.53	.00	1.13	1.08	.00	1.03	.98	1.16	1.17	1.16	1.15	1.15
6547.	8.75	2.54	.00	1.12	1.07	.00	1.02	.89	1.14	1.15	1.15	1.14	1.14
6572.	8.96	2.55	.00	1.15	1.10	.00	1.05	1.01	1.15	1.16	1.15	1.14	1.14
6615.	9.11	2.52	.00	1.18	1.15	.00	1.08	1.01	1.18	1.19	1.17	1.16	1.16
6643.	8.98	2.52	.00	1.11	1.16	.00	1.06	.96	1.18	1.17	1.18	1.18	1.18
6667.	8.65	2.53	.00	1.17	1.12	.00	1.01	.78	1.15	1.15	1.14	1.14	1.14
6703.	8.87	2.53	.00	1.18	1.14	.00	1.04	.89	1.16	1.16	1.15	1.15	1.15
6731.	8.68	2.53	.00	1.17	1.13	.00	1.02	.80	1.15	1.15	1.14	1.13	1.13
6826.	9.14	2.52	.00	1.19	1.14	.00	1.06	.97	1.18	1.18	1.17	1.16	1.16
6866.	9.02	2.51	.00	1.18	1.14	.00	1.06	.92	1.18	1.18	1.17	1.16	1.16
6894.	9.04	2.52	.00	1.18	1.14	.00	1.05	.94	1.17	1.18	1.16	1.15	1.15
6925.	9.01	2.50	.00	1.18	1.14	.00	1.05	.93	1.18	1.18	1.17	1.16	1.16
6503.	11.78	1.56	.00	1.44	1.45	.00	1.49	1.47	1.46	1.47	1.46	1.46	1.46
6547.	11.78	1.04	.00	1.44	1.45	.00	1.49	1.47	1.46	1.47	1.46	1.46	1.46
6572.	11.88	.99	.00	1.45	1.46	.00	1.51	1.49	1.47	1.49	1.47	1.48	1.48
6615.	11.85	1.29	.00	1.46	1.47	.00	1.51	1.49	1.47	1.49	1.47	1.48	1.48
6643.	11.85	1.25	.00	1.43	1.48	.00	1.52	1.50	1.48	1.47	1.48	1.49	1.49
6667.	11.84	1.07	.00	1.45	1.47	.00	1.51	1.49	1.47	1.49	1.47	1.48	1.48
6703.	11.83	1.08	.00	1.45	1.46	.00	1.51	1.49	1.47	1.48	1.47	1.47	1.47
6731.	11.84	1.06	.00	1.45	1.47	.00	1.51	1.49	1.47	1.49	1.47	1.48	1.48
6826.	11.91	1.22	.00	1.45	1.45	.00	1.50	1.49	1.47	1.49	1.47	1.47	1.47
6866.	11.86	1.16	.00	1.45	1.46	.00	1.50	1.49	1.47	1.49	1.47	1.47	1.47
6894.	11.85	1.19	.00	1.45	1.46	.00	1.50	1.49	1.47	1.49	1.47	1.47	1.47
6925.	11.90	1.07	.00	1.45	1.46	.00	1.50	1.49	1.47	1.49	1.47	1.48	1.48

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PACK NO. 25 TEST TEMPERATURE 40 C  
 SONOTONE 5 A.H. PERCENT OF RECHARGE 160 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES										END OF DISCHARGE	
			1	2	3	4	5	6	7	8	9	10		
6427.	11.56	1.52	1.16	1.17	1.17	1.13	1.02	1.14	1.19	1.19	1.19	1.15	1.16	1.16
6462.	11.28	1.51	1.11	1.14	1.14	1.09	.81	1.13	1.18	1.19	1.19	1.16	1.17	1.17
6487.	10.12	1.50	1.12	1.13	1.13	1.07	.13	1.09	1.15	1.15	1.15	1.11	1.13	1.13
6493.	10.29	1.51	1.12	1.13	1.15	1.10	.00	1.12	1.20	1.20	1.20	1.14	1.16	1.16
6517.	10.43	1.51	1.15	1.16	1.15	1.12	.00	1.14	1.20	1.20	1.20	1.15	1.19	1.19
6598.	10.63	1.51	1.15	1.16	1.16	1.12	.00	1.15	1.20	1.20	1.20	1.17	1.18	1.18
6638.	10.58	1.50	1.15	1.16	1.17	1.14	.00	1.15	1.21	1.21	1.21	1.17	1.19	1.19
6666.	10.58	1.50	1.15	1.16	1.17	1.13	.00	1.14	1.20	1.20	1.21	1.16	1.18	1.18
6697.	10.56	1.50	1.15	1.16	1.17	1.13	.00	1.14	1.20	1.20	1.20	1.16	1.18	1.18
6427.	14.66	1.20	1.46	1.43	1.42	1.50	1.59	1.42	1.39	1.42	1.42	1.40	1.45	1.45
6462.	14.70	.75	1.43	1.40	1.41	1.48	1.60	1.42	1.40	1.43	1.43	1.42	1.48	1.48
6487.	14.67	.68	1.46	1.44	1.43	1.50	1.60	1.42	1.40	1.42	1.42	1.40	1.46	1.46
6493.	13.40	.68	1.50	1.47	1.47	1.62	.00	1.47	1.44	1.47	1.47	1.45	1.51	1.51
6517.	13.58	1.25	1.48	1.47	1.45	1.71	.00	1.48	1.44	1.47	1.47	1.44	1.62	1.62
6598.	13.74	1.19	1.48	1.46	1.46	1.73	.00	1.48	1.44	1.47	1.47	1.45	1.63	1.63
6638.	13.74	1.21	1.49	1.46	1.46	1.73	.00	1.48	1.44	1.47	1.47	1.45	1.64	1.64
6666.	13.77	1.21	1.49	1.47	1.47	1.74	.00	1.48	1.44	1.48	1.48	1.45	1.64	1.64
6697.	13.77	1.21	1.49	1.47	1.47	1.74	.00	1.49	1.44	1.49	1.47	1.45	1.63	1.63

PACK NO. 53  
 SONOTONE 5 A.H.

DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES										END OF DISCHARGE		
			1	2	3	4	5	6	7	8	9	10			
3174.	12.25	1.50	1.21	1.22	1.23	1.23	1.23	1.23	1.22	1.22	1.22	1.23	1.22	1.22	1.19
3204.	12.30	1.50	1.18	1.19	1.21	1.21	1.21	1.22	1.21	1.22	1.22	1.23	1.23	1.23	1.22
3226.	12.30	1.50	1.22	1.22	1.23	1.23	1.24	1.24	1.23	1.24	1.24	1.24	1.24	1.24	1.23
3252.	12.28	1.50	1.21	1.22	1.24	1.24	1.24	1.24	1.23	1.24	1.24	1.24	1.23	1.23	1.23
3284.	12.27	1.50	1.21	1.22	1.23	1.23	1.24	1.24	1.23	1.23	1.24	1.24	1.23	1.23	1.24
3316.	12.27	1.50	1.21	1.22	1.22	1.22	1.23	1.24	1.24	1.24	1.24	1.24	1.23	1.23	1.24
3357.	12.48	1.51	1.21	1.22	1.23	1.23	1.23	1.23	1.23	1.24	1.24	1.25	1.24	1.24	1.26
3394.	12.41	1.50	1.21	1.22	1.23	1.23	1.23	1.23	1.23	1.24	1.24	1.25	1.24	1.24	1.24
3174.	15.38	.35	1.55	1.53	1.51	1.51	1.55	1.55	1.46	1.54	1.64	1.50	1.50	1.37	
3204.	15.43	.22	1.53	1.53	1.53	1.53	1.58	1.55	1.51	1.59	1.70	1.55	1.55	1.43	
3226.	15.32	.22	1.54	1.53	1.52	1.52	1.56	1.53	1.49	1.55	1.66	1.53	1.53	1.42	
3252.	15.39	.22	1.55	1.53	1.53	1.53	1.57	1.54	1.49	1.57	1.67	1.53	1.53	1.42	
3284.	15.46	.21	1.55	1.53	1.53	1.53	1.57	1.54	1.49	1.58	1.68	1.54	1.54	1.47	
3316.	15.41	.22	1.54	1.53	1.51	1.51	1.57	1.53	1.50	1.57	1.67	1.52	1.52	1.49	
3357.	15.78	.18	1.51	1.51	1.52	1.52	1.58	1.54	1.49	1.62	1.69	1.54	1.54	1.61	
3394.	15.59	.20	1.52	1.52	1.51	1.51	1.58	1.53	1.49	1.59	1.69	1.53	1.53	1.52	

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PACK NO. 6  
SONOTONE 5 A.H.  
DEPTH OF DISCHARGE 40  
PERCENT OF RECHARGE 125  
TEST TEMPERATURE 25 C  
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					TEST TEMPERATURE 25 C ORBIT PERIOD 3 HOURS					END OF DISCHARGE
			1	2	3	4	5	6	7	8	9	10	
3147.	7.68	3.96	1.14	1.14	1.13	.00	1.15	1.06	1.09	.00	1.01	.00	.00
3187.	7.62	4.00	1.14	1.14	1.12	.00	1.15	1.06	1.08	.00	.98	.00	.00
3216.	7.32	4.01	1.13	1.13	1.08	.00	1.14	.99	1.05	.00	.87	.00	.00
3290.	7.72	3.97	1.13	1.14	1.11	.00	1.14	1.06	1.08	.00	.96	.00	.00
3326.	7.47	3.95	1.13	1.13	1.09	.00	1.14	1.01	1.06	.00	.85	.00	.00
3147.	10.49	1.00	1.45	1.52	1.44	.00	1.52	1.45	1.52	.00	1.59	.00	.00
3187.	10.50	.53	1.46	1.53	1.44	.00	1.53	1.45	1.52	.00	1.57	.00	.00
3216.	10.61	.52	1.47	1.55	1.45	.00	1.56	1.45	1.56	.00	1.61	.00	.00
3290.	10.77	.60	1.46	1.53	1.44	.00	1.55	1.45	1.57	.00	1.60	.00	.00
3326.	10.76	.56	1.46	1.54	1.44	.00	1.56	1.46	1.57	.00	1.60	.00	.00

PACK NO. 30      DEPTH OF DISCHARGE 25      TEST TEMPERATURE 40 C  
 SONOTONE 5 A.H.      PERCENT OF RECHARGE 160      ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT 2.50	CELL VOLTAGES					END OF DISCHARGE				
			1	2	3	4	5		6	7	8	9
3068.	8.23	2.52	1.16	1.21	1.22	.10	1.22	1.23	.00	1.17	.04	1.20
3134.	7.88	2.53	1.12	1.15	1.15	.00	1.13	1.17	.00	1.12	.00	1.13
3172.	8.06	2.52	1.13	1.15	1.14	.00	1.12	1.16	.00	1.13	.00	1.14
3208.	7.47	2.49	.94	1.12	1.12	.00	1.10	1.13	.00	.94	.00	1.05
3068.	13.42	.80	1.45	1.45	1.50	1.42	1.59	1.48	.00	1.46	1.45	1.62
3134.	10.14	.66	1.42	1.44	1.47	.00	1.50	1.46	.00	1.45	.00	1.50
3172.	10.17	.42	1.41	1.42	1.43	.00	1.44	1.43	.00	1.43	.00	1.47
3208.	10.14	.42	1.41	1.43	1.45	.00	1.47	1.44	.00	1.42	.00	1.44

PACK NO. 29      DEPTH OF DISCHARGE 15      TEST TEMPERATURE 40 C  
 SONOTONE 5 A.H.      PERCENT OF RECHARGE 160      ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE				
			1	2	3	4	5	6		7	8	9	10
3092.	10.58	1.51	.00	1.22	1.22	1.20	1.20	1.21	1.19	1.19	1.10	1.13	1.17
3122.	10.57	1.51	.00	1.17	1.17	1.13	1.15	1.15	1.14	1.15	1.06	1.12	1.16
3144.	10.63	1.50	.00	1.21	1.22	1.18	1.20	1.20	1.19	1.19	1.11	1.15	1.19
3170.	10.56	1.50	.00	1.21	1.22	1.17	1.20	1.20	1.18	1.19	1.09	1.14	1.18
3202.	10.53	1.51	.00	1.21	1.21	1.17	1.20	1.20	1.18	1.18	1.09	1.14	1.18
3234.	10.52	1.51	.00	1.21	1.20	1.17	1.20	1.20	1.19	1.19	1.08	1.13	1.18
3275.	10.71	1.50	.00	1.21	1.20	1.18	1.19	1.19	1.19	1.18	1.10	1.15	1.19
3092.	12.69	.48	.00	1.37	1.38	1.36	1.40	1.40	1.38	1.39	1.44	1.41	1.40
3122.	12.70	.48	.00	1.40	1.41	1.40	1.43	1.43	1.41	1.42	1.46	1.42	1.41
3144.	12.68	.47	.00	1.41	1.41	1.39	1.42	1.39	1.41	1.41	1.45	1.41	1.40
3170.	12.68	.47	.00	1.41	1.41	1.39	1.42	1.39	1.41	1.41	1.45	1.41	1.40
3202.	12.69	.47	.00	1.41	1.41	1.39	1.42	1.39	1.41	1.41	1.45	1.41	1.40
3234.	12.68	.47	.00	1.41	1.39	1.39	1.42	1.42	1.41	1.41	1.45	1.41	1.40
3275.	12.79	.45	.00	1.40	1.39	1.38	1.41	1.41	1.39	1.40	1.45	1.41	1.40

PACK NO. 61  
 GULTON 6 A.H.

DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE				
			1	2	3	4	5	6		7	8	9	10
6038.	7.04	1.81	.95	1.25	1.17	.00	.00	.00	1.23	1.24	1.24	1.24	.00
6060.	6.96	1.80	.89	1.24	1.16	.00	.00	.00	1.23	1.24	1.24	1.23	.00
6143.	7.01	1.80	.88	1.23	1.13	.00	.00	.00	1.22	1.24	1.24	1.24	.00
6183.	6.93	1.80	.85	1.23	1.12	.00	.00	.00	1.22	1.24	1.24	1.24	.00
6211.	6.95	1.80	.86	1.23	1.12	.00	.00	.00	1.22	1.24	1.24	1.23	.00
6242.	6.92	1.80	.85	1.24	1.11	.00	.00	.00	1.22	1.23	1.23	1.24	.00
6038.	9.47	1.04	1.70	1.67	1.49	.00	.00	.00	1.54	1.53	1.53	1.55	.00
6060.	9.47	.68	1.69	1.62	1.52	.00	.00	.00	1.55	1.54	1.54	1.54	.00
6143.	9.47	.60	1.68	1.55	1.53	.00	.00	.00	1.53	1.53	1.53	1.54	.00
6183.	9.44	.60	1.69	1.55	1.53	.00	.00	.00	1.54	1.54	1.54	1.55	.00
6211.	9.45	.60	1.68	1.55	1.53	.00	.00	.00	1.54	1.54	1.54	1.54	.00
6242.	9.47	.59	1.69	1.56	1.54	.00	.00	.00	1.53	1.53	1.53	1.54	.00

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PACK NO. 62  
 GULTON 6 A.H.  
 CYCLE NO. 1  
 VOLTAGE 3.00  
 CURRENT 2.33  
 8.92  
 8.24  
 8.19  
 8.22  
 8.23  
 8.18  
 8.08  
 8.07  
 8.32  
 8.22  
 8.27  
 8.27

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE			
			1	2	3	4	5	6		7	8	9
6246.	8.92	2.33	1.26	1.27	1.26	.00	1.26	1.26	1.26	1.28	1.21	.00
6291.	8.24	3.03	1.21	1.20	1.19	.00	1.16	1.17	1.17	1.19	1.19	.00
6339.	8.19	3.02	1.19	1.17	1.16	.00	1.15	1.16	1.16	1.18	1.19	.00
6386.	8.22	3.01	1.21	1.11	1.18	.00	1.17	1.18	1.19	1.19	1.21	.00
6418.	8.23	3.01	1.20	1.18	1.17	.00	1.16	1.17	1.19	1.19	1.20	.00
6482.	8.18	3.03	1.20	1.17	1.17	.00	1.15	1.16	1.19	1.19	1.19	.00
6546.	8.08	3.01	1.19	1.16	1.16	.00	1.15	1.16	1.19	1.19	1.19	.00
6586.	8.07	3.00	1.19	1.16	1.17	.00	1.15	1.16	1.19	1.19	1.20	.00
6621.	8.32	3.01	1.19	1.17	1.17	.00	1.15	1.17	1.19	1.19	1.19	.00
6665.	8.22	3.01	1.19	1.16	1.16	.00	1.15	1.16	1.18	1.19	1.19	.00
6689.	8.27	3.02	1.19	1.17	1.17	.00	1.15	1.17	1.19	1.19	1.19	.00
6718.	8.27	3.01	1.20	1.17	1.17	.00	1.15	1.17	1.19	1.19	1.20	.00

6246.	10.50	1.72	1.48	1.48	1.49	.00	1.48	1.48	1.49	1.52	1.45	.00
6291.	10.94	.87	1.56	1.59	1.57	.00	1.60	1.60	1.54	1.55	1.51	.00
6339.	10.97	.80	1.56	1.60	1.58	.00	1.62	1.62	1.55	1.56	1.52	.00
6386.	10.97	.79	1.56	1.61	1.58	.00	1.63	1.63	1.55	1.55	1.53	.00
6418.	10.99	.79	1.56	1.61	1.57	.00	1.63	1.63	1.55	1.56	1.52	.00
6482.	11.00	.77	1.56	1.62	1.58	.00	1.65	1.65	1.55	1.56	1.52	.00
6546.	10.93	.76	1.55	1.62	1.58	.00	1.66	1.66	1.56	1.57	1.53	.00
6586.	10.95	.77	1.57	1.64	1.58	.00	1.62	1.62	1.55	1.56	1.52	.00
6621.	11.07	.76	1.54	1.60	1.56	.00	1.60	1.60	1.55	1.57	1.53	.00
6665.	11.02	.72	1.56	1.60	1.57	.00	1.64	1.64	1.56	1.57	1.52	.00
6689.	11.12	.77	1.55	1.63	1.57	.00	1.64	1.64	1.56	1.57	1.52	.00
6718.	11.14	.75	1.56	1.63	1.57	.00	1.64	1.64	1.56	1.57	1.53	.00

END OF CHARGE

PACK NO. 37  
 GULTON 6 A.H.  
 DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 160  
 TEST TEMPERATURE 40 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					7	8	9	10	END OF DISCHARGE
			1	2	3	4	5					
5359.	5.16	1.80	1.18	.79	.00	.00	1.18	.81	.02	.00	1.15	.00
5403.	5.23	1.80	1.17	.84	.00	.00	1.17	.89	.02	.00	1.05	.00
5428.	4.94	1.81	1.17	.76	.00	.00	1.18	.75	.01	.00	1.07	.00
5471.	5.03	1.79	1.20	.82	.00	.00	1.20	.74	.00	.00	1.11	.00
5499.	4.98	1.80	1.21	.73	.00	.00	1.20	.71	.01	.00	1.13	.00
5523.	4.89	1.79	1.19	.78	.00	.00	1.19	.68	.00	.00	1.09	.00
5561.	5.02	1.80	1.18	.79	.00	.00	1.19	.69	.00	.00	1.19	.00
5587.	5.00	1.79	1.19	.76	.00	.00	1.19	.71	.00	.00	1.19	.00
5627.	5.06	1.81	1.20	.79	.00	.00	1.19	.76	.00	.00	1.16	.00
5649.	4.89	1.81	1.18	.74	.00	.00	1.19	.73	.01	.00	1.09	.00
5732.	5.15	1.81	1.18	.77	.00	.00	1.19	.75	.01	.00	1.20	.00
5772.	5.11	1.80	1.18	.78	.00	.00	1.19	.75	.00	.00	1.21	.00
5800.	5.09	1.80	1.19	.77	.00	.00	1.18	.72	.00	.00	1.19	.00
5831.	5.11	1.79	1.19	.78	.00	.00	1.19	.73	.00	.00	1.19	.00
5359.	7.25	1.44	1.42	1.49	.00	.00	1.44	1.47	.01	.00	1.41	.00
5403.	7.24	1.33	1.41	1.48	.00	.00	1.43	1.47	.01	.00	1.39	.00
5428.	7.23	1.31	1.43	1.50	.00	.00	1.45	1.48	.00	.00	1.40	.00
5471.	7.25	1.30	1.43	1.50	.00	.00	1.45	1.47	.00	.00	1.41	.00
5499.	7.25	1.31	1.44	1.51	.00	.00	1.46	1.47	.00	.00	1.41	.00
5523.	7.26	1.30	1.44	1.51	.00	.00	1.45	1.47	.00	.00	1.41	.00
5561.	7.23	1.36	1.43	1.50	.00	.00	1.44	1.46	.00	.00	1.41	.00
5587.	7.27	1.26	1.44	1.51	.00	.00	1.45	1.48	.00	.00	1.42	.00
5627.	7.27	1.28	1.44	1.50	.00	.00	1.46	1.48	.00	.00	1.42	.00
5649.	7.28	1.25	1.43	1.51	.00	.00	1.46	1.49	.01	.00	1.40	.00
5732.	7.38	1.25	1.42	1.50	.00	.00	1.44	1.48	.01	.00	1.42	.00
5772.	7.36	1.25	1.43	1.50	.00	.00	1.45	1.49	.00	.00	1.43	.00
5800.	7.38	1.23	1.43	1.51	.00	.00	1.45	1.49	.01	.00	1.43	.00
5831.	7.38	1.25	1.43	1.51	.00	.00	1.45	1.48	.00	.00	1.42	.00

PACK NO. 65  
 GULTON 6 A.H.  
 DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 115  
 TEST TEMPERATURE 0 C  
 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF DISCHARGE					
			1	2	3	4	5	6		7	8	9	10	
3306.	12.31	1.81	1.25	1.26	1.25	1.25	1.26	1.26	1.26	1.26	1.21	1.23	1.23	1.17
3336.	12.36	1.81	1.22	1.24	1.23	1.24	1.24	1.25	1.26	1.26	1.22	1.25	1.25	1.20
3358.	12.34	1.81	1.24	1.25	1.24	1.24	1.25	1.25	1.25	1.25	1.21	1.25	1.24	1.19
3384.	12.35	1.81	1.24	1.25	1.24	1.24	1.25	1.25	1.25	1.25	1.22	1.25	1.24	1.19
3416.	12.33	1.82	1.24	1.24	1.24	1.24	1.25	1.25	1.26	1.26	1.21	1.24	1.24	1.19
3448.	12.29	1.82	1.23	1.25	1.22	1.24	1.24	1.25	1.26	1.26	1.21	1.24	1.23	1.19
3489.	12.51	1.82	1.23	1.24	1.23	1.24	1.24	1.24	1.26	1.26	1.22	1.25	1.25	1.19
3526.	12.47	1.81	1.24	1.25	1.24	1.24	1.24	1.24	1.26	1.26	1.22	1.25	1.25	1.19

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES						END OF CHARGE					
			1	2	3	4	5	6		7	8	9	10	
3306.	15.75	.41	1.61	1.62	1.55	1.55	1.53	1.53	1.53	1.53	1.61	1.52	1.51	1.62
3336.	15.86	.39	1.62	1.63	1.58	1.56	1.56	1.56	1.56	1.56	1.66	1.56	1.54	1.67
3358.	15.76	.37	1.63	1.65	1.57	1.56	1.53	1.53	1.53	1.53	1.63	1.53	1.51	1.63
3384.	15.74	.38	1.63	1.63	1.57	1.55	1.54	1.53	1.53	1.53	1.63	1.53	1.51	1.63
3416.	15.55	.34	1.60	1.58	1.55	1.53	1.53	1.53	1.52	1.52	1.61	1.53	1.50	1.61
3448.	15.60	.31	1.61	1.60	1.53	1.54	1.53	1.53	1.53	1.53	1.63	1.52	1.50	1.63
3489.	15.64	.34	1.57	1.56	1.54	1.52	1.52	1.52	1.52	1.52	1.60	1.52	1.51	1.59
3526.	15.58	.32	1.57	1.57	1.53	1.53	1.51	1.51	1.52	1.52	1.59	1.53	1.51	1.60

PACK NO. 66  
 GULTON 6 A.H.

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 3 HOURS

CYCLE PACK CURRENT  
 NO. VOLTAGE 3.00

CELL VOLTAGES

6 7 8 9 10

END OF  
 DISCHARGE

END OF  
 CHARGE

	1	2	3	4	5	6	7	8	9	10		
3065.	5.71	3.02	1.18	1.20	.00	.99	.00	.00	.00	1.18	1.18	END OF DISCHARGE
3105.	5.68	3.02	1.18	1.20	.00	.98	.00	.00	.00	1.18	1.17	
3134.	5.58	3.03	1.17	1.20	.00	.91	.00	.00	.00	1.17	1.17	
3170.	5.67	3.03	1.17	1.20	.00	1.05	.00	.00	.00	1.18	1.14	
3208.	5.87	3.03	1.16	1.19	.00	1.12	.00	.00	.00	1.18	1.18	
3244.	5.68	3.03	1.16	1.19	.00	1.03	.00	.00	.00	1.18	1.09	
3065.	7.76	.69	1.60	1.60	.00	1.53	.00	.00	.00	1.52	1.51	END OF CHARGE
3105.	7.72	.58	1.60	1.61	.00	1.53	.00	.00	.00	1.51	1.47	
3134.	7.77	.58	1.63	1.64	.00	1.55	.00	.00	.00	1.50	1.46	
3170.	7.64	.61	1.61	1.62	.00	1.55	.00	.00	.00	1.51	1.42	
3208.	7.77	.66	1.56	1.61	.00	1.56	.00	.00	.00	1.52	1.43	
3244.	7.67	.64	1.55	1.59	.00	1.53	.00	.00	.00	1.52	1.41	

PACK NO. 42      DEPTH OF DISCHARGE 25      TEST TEMPERATURE 40 C  
 GULTON 6 A.H.      PERCENT OF RECHARGE 160      ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE 3.00	CURRENT	CELL VOLTAGES										END OF DISCHARGE		
			1	2	3	4	5	6	7	8	9	10			
2882.	6.66	3.02	.00	1.16	1.15	1.05	1.17	1.08	.00	.00	.00	.00	.00	.00	1.08
2922.	6.45	3.00	.00	1.14	1.14	1.01	1.12	1.03	.00	.00	.00	.00	.00	.00	1.04
2951.	6.28	2.98	.00	1.13	1.14	.99	1.08	.99	.00	.00	.00	.00	.00	.00	1.00
2987.	6.33	2.99	.00	1.14	1.14	1.02	1.12	.98	.00	.00	.00	.00	.00	.00	1.02
3025.	5.73	2.99	.00	1.11	1.11	.95	1.02	.48	.00	.00	.00	.00	.00	.00	.98
2882.	8.80	.96	.00	1.49	1.45	1.47	1.44	1.53	.00	.00	.00	.00	.00	.00	1.44
2922.	8.93	.64	.00	1.50	1.51	1.48	1.44	1.57	.00	.00	.00	.00	.00	.00	1.45
2951.	9.03	.62	.00	1.52	1.54	1.52	1.45	1.58	.00	.00	.00	.00	.00	.00	1.45
2987.	9.04	.66	.00	1.56	1.55	1.53	1.45	1.59	.00	.00	.00	.00	.00	.00	1.46
3025.	8.76	.37	.00	1.43	1.48	1.45	1.41	1.44	.00	.00	.00	.00	.00	.00	1.43

PACK NO. 110  
G.E. 12 A.H.

DEPTH OF DISCHARGE 15  
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT  
NO. VOLTAGE 3.60

CELL VOLTAGES  
3 4 5

END OF  
DISCHARGE

6275.	6.18	3.64	1.24	1.24	1.23	1.23	1.23	1.23	1.23
6319.	6.22	3.62	1.23	1.23	1.23	1.23	1.24	1.24	1.24
6344.	6.17	3.63	1.26	1.26	1.26	1.25	1.25	1.25	1.25
6387.	6.22	3.61	1.25	1.25	1.25	1.25	1.25	1.25	1.25
6415.	6.23	3.60	1.26	1.18	1.27	1.26	1.26	1.27	1.27
6439.	6.20	3.62	1.25	1.25	1.25	1.25	1.24	1.24	1.24
6477.	6.20	3.62	1.25	1.24	1.25	1.25	1.24	1.24	1.25
6503.	6.19	3.62	1.25	1.24	1.25	1.25	1.24	1.25	1.25
6543.	6.21	3.62	1.25	1.25	1.25	1.25	1.25	1.25	1.25
6565.	6.20	3.62	1.25	1.25	1.24	1.25	1.25	1.25	1.25
6646.	6.19	3.62	1.25	1.25	1.25	1.25	1.24	1.24	1.24
6688.	6.19	3.59	1.25	1.25	1.25	1.25	1.25	1.25	1.25
6716.	6.19	3.60	1.25	1.25	1.25	1.25	1.24	1.24	1.25

6275.	7.85	2.07	1.55	1.56	1.53	1.55	1.55	1.55	1.55
6319.	7.84	1.26	1.58	1.59	1.55	1.55	1.56	1.56	1.56
6344.	7.83	1.19	1.55	1.55	1.52	1.54	1.54	1.53	1.53
6387.	7.82	1.22	1.59	1.59	1.55	1.56	1.56	1.55	1.55
6415.	7.82	1.19	1.59	1.59	1.55	1.56	1.56	1.56	1.56
6439.	7.83	1.24	1.59	1.59	1.55	1.56	1.56	1.55	1.55
6477.	7.80	1.24	1.59	1.58	1.55	1.56	1.56	1.55	1.55
6503.	7.81	1.17	1.59	1.59	1.55	1.56	1.56	1.56	1.56
6543.	7.83	1.25	1.59	1.59	1.55	1.56	1.56	1.55	1.55
6565.	7.81	1.23	1.58	1.59	1.53	1.56	1.56	1.56	1.56
6646.	7.81	1.23	1.59	1.59	1.55	1.56	1.56	1.55	1.55
6688.	7.81	1.20	1.60	1.59	1.55	1.57	1.57	1.56	1.56
6716.	7.80	1.26	1.59	1.58	1.55	1.56	1.56	1.55	1.55

END OF  
CHARGE

PACK NO. 124  
G.E. 12 A.H.

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
ORBIT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGE CURRENT

CELL VOLTAGES  
1 2 3 4 5

END OF  
DISCHARGE

6042.	5.94	6.07	1.19	1.19	1.13	1.19	1.19	1.19	1.19
6086.	5.96	6.06	1.18	1.18	1.12	1.18	1.18	1.18	1.19
6111.	5.94	6.05	1.21	1.21	1.15	1.22	1.22	1.23	1.23
6154.	5.97	6.08	1.21	1.21	1.15	1.21	1.21	1.21	1.21
6182.	5.98	6.07	1.22	1.22	1.12	1.22	1.22	1.22	1.22
6206.	5.94	6.01	1.21	1.21	1.15	1.21	1.21	1.21	1.21
6244.	5.96	6.00	1.21	1.21	1.14	1.21	1.21	1.20	1.20
6270.	5.93	5.99	1.20	1.21	1.13	1.20	1.20	1.20	1.20
6310.	5.96	6.04	1.21	1.21	1.14	1.21	1.21	1.21	1.21
6332.	5.93	6.01	1.22	1.21	1.14	1.20	1.20	1.20	1.20
6415.	5.99	6.05	1.20	1.20	1.14	1.20	1.20	1.20	1.20
6455.	5.97	6.04	1.20	1.21	1.14	1.21	1.21	1.21	1.21
6483.	5.98	6.05	1.21	1.21	1.14	1.20	1.20	1.20	1.20
6514.	5.96	6.06	1.21	1.21	1.14	1.20	1.20	1.20	1.20

END OF  
CHARGE

6042.	7.77	3.45	1.55	1.50	1.63	1.48	1.54	1.54	1.54
6086.	7.82	1.47	1.52	1.48	1.62	1.49	1.56	1.56	1.56
6111.	7.77	1.43	1.56	1.52	1.65	1.50	1.56	1.56	1.56
6154.	7.82	1.37	1.56	1.52	1.66	1.51	1.59	1.59	1.59
6182.	7.82	1.36	1.56	1.52	1.65	1.51	1.58	1.58	1.58
6206.	7.85	1.40	1.57	1.52	1.66	1.51	1.59	1.59	1.59
6244.	7.82	1.47	1.56	1.52	1.65	1.51	1.58	1.58	1.58
6270.	7.82	1.39	1.57	1.52	1.66	1.51	1.59	1.59	1.59
6310.	7.83	1.33	1.57	1.52	1.66	1.51	1.59	1.59	1.59
6332.	7.83	1.34	1.58	1.53	1.67	1.50	1.59	1.59	1.59
6415.	7.83	1.44	1.56	1.52	1.65	1.51	1.58	1.58	1.58
6455.	7.90	1.47	1.56	1.52	1.65	1.51	1.58	1.58	1.58
6483.	7.87	1.37	1.56	1.52	1.65	1.51	1.58	1.58	1.58
6514.	7.86	1.39	1.56	1.52	1.65	1.51	1.58	1.58	1.58
6514.	7.86	1.38	1.56	1.52	1.65	1.51	1.59	1.59	1.59

PACK NO. 82  
G.E. 12 A.H.

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 125

TEST TEMPERATURE 25 C  
ORBIT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGE CURRENT

CELL VOLTAGES  
3 4 5

END OF  
DISCHARGE

END OF  
CHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT	1	2	3	4	5
6311.	5.90	5.92	1.15	1.15	1.14	1.17	1.16
6355.	5.95	5.91	1.17	1.17	1.17	1.20	1.18
6380.	5.82	5.97	1.18	1.17	1.16	1.19	1.16
6423.	5.82	5.99	1.18	1.16	1.16	1.19	1.16
6451.	5.92	5.97	1.20	1.18	1.15	1.21	1.19
6475.	5.80	5.96	1.19	1.15	1.16	1.19	1.16
6513.	5.91	5.98	1.20	1.18	1.19	1.20	1.19
6539.	5.79	5.98	1.18	1.15	1.16	1.18	1.16
6579.	5.81	5.97	1.18	1.15	1.16	1.19	1.16
6601.	5.80	6.00	1.18	1.16	1.14	1.19	1.16
6684.	5.79	6.02	1.19	1.15	1.16	1.18	1.16
6724.	5.76	6.00	1.19	1.14	1.16	1.18	1.16
6752.	5.73	5.95	1.18	1.13	1.15	1.17	1.15
6783.	5.77	5.95	1.19	1.14	1.15	1.18	1.16
6311.	7.30	3.75	1.43	1.45	1.44	1.45	1.45
6355.	7.30	3.36	1.46	1.47	1.46	1.47	1.45
6380.	7.27	3.60	1.46	1.47	1.45	1.46	1.45
6423.	7.34	3.58	1.48	1.48	1.46	1.47	1.46
6451.	7.29	3.46	1.47	1.46	1.45	1.46	1.45
6475.	7.29	3.00	1.48	1.47	1.46	1.47	1.45
6513.	7.37	2.97	1.48	1.48	1.48	1.48	1.47
6539.	7.31	3.46	1.49	1.47	1.47	1.47	1.46
6579.	7.41	3.02	1.48	1.48	1.48	1.49	1.47
6601.	7.41	3.47	1.50	1.48	1.47	1.49	1.47
6684.	7.37	3.59	1.49	1.49	1.47	1.49	1.46
6724.	7.33	3.66	1.50	1.48	1.48	1.49	1.46
6752.	7.33	3.20	1.49	1.48	1.47	1.48	1.44
6783.	7.23	3.36	1.47	1.46	1.46	1.45	1.44
6783.	7.32	3.20	1.50	1.48	1.47	1.47	1.46

TEST TEMPERATURE 0 C  
ORBIT PERIOD 3 HOURS

PACK NO. 111 G.E. 12 A.H.	CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 115					CELL VOLTAGES	END OF DISCHARGE	
				1	2	3	4	5			
	3202.	6.19	3.64	1.24	1.25	1.24	1.24	1.24	1.24	1.24	
	3242.	6.17	3.64	1.24	1.24	1.23	1.24	1.24	1.24	1.24	
	3271.	6.15	3.64	1.24	1.24	1.22	1.24	1.24	1.24	1.23	
	3345.	6.17	3.64	1.24	1.25	1.23	1.24	1.24	1.24	1.24	
	3381.	6.15	3.66	1.24	1.24	1.23	1.24	1.24	1.24	1.24	
	3202.	7.75	.83 .46	1.63	1.51	1.59	1.59	1.50	1.50	1.55	
	3242.	7.77	.47	1.63	1.51	1.59	1.59	1.50	1.50	1.55	
	3271.	7.76	.48	1.62	1.52	1.59	1.59	1.50	1.50	1.55	
	3345.	7.76	.49	1.60	1.52	1.61	1.61	1.50	1.50	1.56	
	3381.	7.77	.49	1.63	1.52	1.59	1.59	1.50	1.50	1.56	

END OF CHARGE

PACK NO. 85  
G.E. 12 A.H.

DEPTH F DISCHARGE 15  
PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
6146.	5.85	3.60	1.17	1.17	1.15	1.15	1.15	1.16
6177.	5.86	3.61	1.19	1.18	1.17	1.17	1.17	1.17
6230.	5.92	3.60	1.20	1.19	1.19	1.18	1.18	1.19
6281.	5.97	3.59	1.21	1.20	1.19	1.19	1.19	1.20
6304.	5.89	3.59	1.20	1.18	1.17	1.18	1.18	1.18
6346.	5.90	3.61	1.20	1.18	1.18	1.18	1.18	1.18
6368.	5.90	3.61	1.20	1.18	1.17	1.18	1.18	1.18
6398.	5.89	3.61	1.20	1.18	1.17	1.17	1.17	1.18
6493.	5.86	3.58	1.19	1.18	1.17	1.17	1.17	1.18
6507.	5.89	3.58	1.20	1.18	1.18	1.18	1.18	1.18
6549.	5.88	3.56	1.20	1.18	1.18	1.18	1.18	1.19
6575.	5.88	3.55	1.20	1.18	1.18	1.11	1.11	1.18
6604.	5.99	3.56	1.19	1.17	1.17	1.18	1.18	1.18

6146.	7.18	2.88	1.41	1.41	1.43	1.43	1.41	1.41	1.41
6177.	7.17	2.32	1.43	1.43	1.44	1.44	1.43	1.42	1.42
6230.	7.18	2.29	1.44	1.44	1.46	1.44	1.43	1.43	1.43
6281.	7.19	2.28	1.44	1.44	1.46	1.44	1.43	1.43	1.43
6304.	7.20	2.45	1.44	1.45	1.46	1.44	1.43	1.43	1.43
6346.	7.20	2.40	1.44	1.44	1.46	1.44	1.43	1.43	1.43
6368.	7.18	2.44	1.44	1.44	1.46	1.44	1.43	1.43	1.43
6398.	7.21	2.42	1.45	1.45	1.47	1.45	1.44	1.44	1.44
6493.	7.21	2.43	1.45	1.45	1.47	1.45	1.44	1.44	1.44
6507.	7.18	2.22	1.44	1.45	1.47	1.45	1.43	1.43	1.43
6507.	7.19	2.36	1.45	1.45	1.47	1.45	1.44	1.44	1.44
6549.	7.20	2.44	1.45	1.45	1.47	1.45	1.44	1.44	1.44
6575.	7.20	2.43	1.45	1.45	1.47	1.45	1.44	1.44	1.44
6604.	7.37	2.43	1.44	1.44	1.47	1.45	1.45	1.45	1.45

TEST TEMPERATURE 0 C  
ORBIT PERIOD 3 HOURS

PACK NO. 125  
G.E. 12 A.H.

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 115

CYCLE NO.      PACK CURRENT  
VOLTAGE 6.00      CELL VOLTAGES  
1      2      3      4      5

END OF  
DISCHARGE

3176.      6.01      5.93      1.20      1.21      1.20      1.20      1.20      1.20  
3215.      5.99      5.95      1.20      1.20      1.21      1.20      1.20      1.21  
3245.      5.97      6.01      1.20      1.20      1.20      1.20      1.20      1.20

END OF  
CHARGE

3319.      6.05      6.02      1.20      1.20      1.20      1.20      1.20      1.20  
3355.      6.11      6.00      1.21      1.22      1.22      1.22      1.22      1.22

1.38  
3176.      7.78      .60      1.60      1.57      1.59      1.52      1.51      1.51  
3215.      7.81      .65      1.60      1.57      1.60      1.53      1.51      1.52  
3245.      7.78      .61      1.60      1.57      1.60      1.54      1.52      1.52

3319.      7.84      .60      1.60      1.58      1.59      1.52      1.50      1.50  
3355.      7.83      .62      1.60      1.57      1.60      1.52      1.50      1.50



PACK NO. 97  
 G.E. 12 A.H.

DEPTH OF DISCHARGE 40  
 PERCENT OF RECHARGE 125

TEST TEMPERATURE 25 C  
 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
3240.	5.64	9.39	1.13	1.13	1.14	1.13	1.13	
3280.	5.57	9.43	1.12	1.12	1.14	1.12	1.13	
3309.	5.55	9.32	1.12	1.11	1.13	1.11	1.12	
3345.	5.59	9.48	1.13	1.13	1.15	1.13	1.13	
3383.	5.46	9.63	1.09	1.02	1.11	1.10	1.09	
3419.	5.60	9.45	1.11	1.13	1.12	1.11	1.11	
3240.	7.57	2.40	1.49	1.55	1.50	1.53	1.50	END OF CHARGE
3280.	7.61	2.07	1.50	1.57	1.51	1.55	1.51	
3309.	7.59	2.16	1.49	1.57	1.51	1.54	1.51	
3345.	7.02	2.42	1.42	1.42	1.42	1.42	1.42	
3383.	7.32	2.39	1.44	1.44	1.44	1.46	1.45	
3419.	7.65	1.94	1.49	1.56	1.50	1.55	1.50	

PACK NO. 86  
 G.E. 12 A.H.

DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
 ORBIT PERIOD 3 HOURS

CYCLE PACK CURRENT  
 NO. VOLTAGE 3.60

CELL VOLTAGES  
 1 2 3 4 5

END OF  
 DISCHARGE

END OF  
 CHARGE

3116.	5.80	3.60	1.18	1.15	1.16	1.17	1.16	1.16	1.16
3150.	5.74	3.59	1.17	1.13	1.15	1.16	1.16	1.15	1.15
3190.	5.75	3.64	1.17	1.14	1.15	1.17	1.15	1.15	1.15
3222.	5.74	3.61	1.18	1.14	1.15	1.17	1.16	1.16	1.16
3262.	5.70	3.61	1.17	1.14	1.15	1.17	1.16	1.16	1.16
3116.	7.00	1.15	1.40	1.40	1.40	1.40	1.40	1.40	1.40
3150.	7.01	1.17	1.41	1.41	1.41	1.41	1.41	1.41	1.41
3190.	7.02	1.17	1.41	1.41	1.41	1.41	1.41	1.41	1.41
3222.	7.03	1.17	1.42	1.41	1.41	1.41	1.41	1.42	1.42
3262.	6.98	1.17	1.41	1.41	1.41	1.41	1.41	1.41	1.41

PACK NO. 100  
 G.E. 12 A.H.

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
 ORBIT PERIOD 3 HOURS

CYCLE PACK CURRENT  
 NO. VOLTAGE 6.00

CELL VOLTAGES  
 1 2 3 4 5

END OF  
 DISCHARGE

END OF  
 CHARGE

3008.	5.61	5.89	1.15	1.15	1.14	1.09	1.10
3048.	5.62	5.96	1.16	1.15	1.14	1.10	1.10
3080.	5.63	6.02	1.16	1.15	1.14	1.10	1.10
3120.	5.66	5.90	1.18	1.16	1.16	1.13	1.12
3008.	7.17	1.92	1.44	1.45	1.44	1.42	1.42
3048.	7.20	1.93	1.45	1.46	1.45	1.42	1.43
3080.	7.23	1.92	1.46	1.46	1.46	1.43	1.43
3120.	7.20	1.90	1.48	1.47	1.47	1.44	1.43
		1.91					

PACK NO. 84  
GOULD 20 A.H.

DEPTH OF DISCHARGE 15  
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
ORBIT PERIOD 90 MIN.

CYCLE NO.    PACK VOLTAGE    CURRENT

1            2            3            4            5

CELL VOLTAGES

END OF DISCHARGE

END OF CHARGE

6221.	6.32	6.03	1.25	1.24	1.24	1.24	1.25
6266.	6.04	6.07	1.24	1.22	1.22	1.22	1.22
6314.	6.05	6.04	1.23	1.20	1.20	1.21	1.21
6361.	6.33	6.04	1.29	1.23	1.27	1.28	1.28
6393.	6.29	6.06	1.28	1.26	1.25	1.26	1.26
6457.	6.31	6.02	1.28	1.27	1.25	1.26	1.26
6487.	6.26	6.03	1.27	1.25	1.25	1.25	1.25
6521.	6.20	6.00	1.27	1.25	1.25	1.25	1.25
6561.	6.18	6.05	1.26	1.25	1.24	1.25	1.25
6596.	6.30	6.02	1.26	1.24	1.24	1.25	1.25
6640.	6.30	6.01	1.27	1.25	1.25	1.25	1.25
6693.	6.15	6.10	1.25	1.23	1.23	1.23	1.23

6221.	7.96	3.45	1.55	1.58	1.58	1.55	1.57
6266.	7.34	2.69	1.48	1.49	1.49	1.45	1.46
6314.	7.57	2.52	1.51	1.52	1.52	1.47	1.51
6361.	7.90	3.37	1.59	1.58	1.60	1.55	1.57
6393.	7.88	2.43	1.58	1.57	1.59	1.56	1.57
6457.	7.86	2.54	1.56	1.56	1.58	1.56	1.57
6487.	7.60	2.47	1.56	1.58	1.58	1.50	1.52
6521.	7.71	3.07	1.51	1.52	1.53	1.54	1.56
6561.	7.73	2.58	1.53	1.55	1.56	1.56	1.58
6596.	7.88	2.52	1.55	1.57	1.57	1.55	1.56
6640.	7.88	2.49	1.54	1.56	1.58	1.55	1.56
6693.	7.71	1.78	1.53	1.54	1.54	1.54	1.53
6693.	7.56	2.52	1.50	1.52	1.52	1.50	1.51



PACK NO. 80  
GOULD 20 A.H. TEST TEMPERATURE 0 C  
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 115					TEST TEMPERATURE 0 C ORBIT PERIOD 3 HOURS	END OF DISCHARGE
			1	2	3	4	5		
3139.	6.15	6.04	1.23	1.22	1.19	1.24	1.23		
3169.	6.15	6.02	1.24	1.24	1.22	1.27	1.27		
3191.	6.15	6.09	1.25	1.24	1.21	1.26	1.25		
3217.	6.14	6.09	1.25	1.24	1.21	1.25	1.25		
3224.	6.27	6.25	1.27	1.26	1.23	1.28	1.28		
3256.	6.16	6.06	1.25	1.24	1.19	1.26	1.26		
3297.	6.28	6.06	1.26	1.25	1.21	1.26	1.26		
3334.	6.22	6.08	1.26	1.25	1.21	1.26	1.25		

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 115					TEST TEMPERATURE 0 C ORBIT PERIOD 3 HOURS	END OF CHARGE
			1	2	3	4	5		
3139.	7.66	1.38	1.51	1.53	1.53	1.49	1.51		
3169.	7.68	1.03	1.52	1.55	1.56	1.53	1.56		
3191.	7.67	.99	1.52	1.54	1.56	1.52	1.55		
3217.	7.68	1.01	1.53	1.55	1.57	1.53	1.55		
3224.	7.74	.94	1.54	1.55	1.60	1.54	1.56		
3256.	7.73	1.17	1.51	1.57	1.58	1.53	1.55		
3297.	7.91	.97	1.52	1.59	1.62	1.54	1.56		
3334.	7.82	1.08	1.52	1.58	1.58	1.53	1.55		

PACK NO. 94  
 GOULD 20 A.H.  
 TEST TEMPERATURE 0 C  
 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE PERCENT OF RECHARGE					END OF DISCHARGE
			1	2	3	4	5	
2985.	6.07	10.20	1.23	1.21	1.20	1.21	1.21	
3015.	6.02	10.25	1.26	1.24	1.22	1.23	1.22	
3037.	6.05	10.15	1.24	1.22	1.20	1.22	1.21	
3063.	6.05	10.13	1.24	1.22	1.20	1.22	1.22	
3095.	6.02	10.16	1.23	1.21	1.20	1.21	1.21	
3127.	6.03	10.10	1.25	1.22	1.20	1.21	1.21	
3168.	6.11	10.29	1.25	1.23	1.22	1.23	1.23	
3205.	6.03	10.30	1.24	1.22	1.21	1.22	1.22	

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE PERCENT OF RECHARGE					END OF CHARGE
			1	2	3	4	5	
2985.	7.67	2.30	1.43	1.43	1.54	1.54	1.54	
3015.	7.65	1.90	1.49	1.49	1.59	1.57	1.57	
3037.	7.61	1.92	1.48	1.48	1.57	1.55	1.55	
3063.	7.70	1.88	1.49	1.49	1.59	1.57	1.57	
3095.	7.68	1.90	1.49	1.49	1.59	1.57	1.56	
3127.	7.67	1.90	1.50	1.49	1.59	1.56	1.56	
3168.	7.90	1.75	1.52	1.51	1.65	1.62	1.64	
3205.	7.68	1.88	1.50	1.49	1.59	1.57	1.57	

TEST TEMPERATURE 25 C  
ORBIT PERIOD 3 HOURS

PACK NO. 105  
GOULD 20 A.H.

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 125					END OF DISCHARGE
			1	2	3	4	5	
3006.	5.90	10.16	1.15	1.19	1.19	1.20	1.19	
3046.	5.88	10.12	1.14	1.19	1.20	1.20	1.20	
3075.	5.86	10.15	1.14	1.19	1.20	1.20	1.20	
3149.	5.97	10.06	1.14	1.18	1.18	1.19	1.18	
3185.	5.95	10.01	1.13	1.18	1.19	1.20	1.19	
3006.	7.30	2.50	1.45	1.46	1.46	1.46	1.48	
3046.	7.31	2.50	1.46	1.47	1.47	1.47	1.48	
3075.	7.32	2.49	1.46	1.47	1.48	1.47	1.48	
3149.	7.45	2.52	1.46	1.46	1.46	1.46	1.47	
3185.	7.42	2.50	1.45	1.47	1.47	1.46	1.47	

END OF CHARGE

88

TEST TEMPERATURE 40 C  
ORBIT PERIOD 3 HOURS

DEPTH OF DISCHARGE 15  
PERCENT OF RECHARGE 160

PACK NO. 108  
GOULD 20 A.H.

CYCLE PACK CURRENT  
NO. VOLTAGE 6.00

CELL VOLTAGES  
1 2 3 4 5

END OF  
DISCHARGE

2969.	5.93	6.05	1.18	1.16	1.17	1.14	1.19
2996.	6.01	6.05	1.21	1.19	1.22	1.18	1.23
3022.	5.98	6.03	1.21	1.18	1.22	1.17	1.23
3054.	5.98	6.04	1.21	1.18	1.22	1.18	1.22
3086.	5.96	6.04	1.20	1.19	1.20	1.18	1.22
3127.	6.02	6.08	1.20	1.18	1.21	1.18	1.22
3164.	5.98	6.04	1.20	1.18	1.21	1.17	1.22

END OF  
CHARGE

2969.	7.16	1.92	1.46	1.45	1.43	1.45	1.44
2996.	7.22	1.41	1.45	1.46	1.42	1.46	1.44
3022.	7.21	1.93	1.45	1.46	1.43	1.46	1.44
3054.	7.21	1.74	1.44	1.45	1.43	1.45	1.44
3086.	7.21	1.71	1.44	1.46	1.41	1.45	1.44
3127.	7.22	1.70	1.44	1.45	1.42	1.45	1.44
3164.	7.24	1.70	1.44	1.45	1.43	1.45	1.44

PACK NO. 73  
GULTON 20 A.H.

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 125

TEST TEMPERATURE 25 C  
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT  
NO. VOLTAGE 10.00

CELL VOLTAGES  
3 4 5

END OF  
DISCHARGE

END OF  
CHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT	1	2	3	4	5	END OF DISCHARGE
5948.	4.35	9.87	1.00	1.18	.00	1.07	1.14	
5992.	4.30	9.80	.92	1.15	.00	1.05	1.12	
6017.	4.07	9.48	.91	1.17	.00	1.00	1.11	
6060.	4.07	9.41	.80	1.16	.00	1.03	1.12	
6088.	4.07	9.63	.76	1.09	.00	1.07	1.14	
6120.	3.36	8.55	.06	1.17	.00	1.13	1.18	
6141.	3.54	8.95	.00	1.20	.00	1.18	1.19	
6163.	3.50	8.82	.00	1.20	.00	1.16	1.18	
6246.	3.50	9.70	.00	1.17	.00	1.14	1.15	
6286.	3.44	9.87	.00	1.16	.00	1.13	1.15	
6314.	3.43	9.82	.00	1.15	.00	1.12	1.14	
6345.	3.49	9.65	.00	1.17	.00	1.14	1.16	
5948.	5.90	6.25	1.52	1.48	.00	1.46	1.49	
5992.	5.85	4.77	1.52	1.47	.00	1.44	1.46	
6017.	5.84	4.66	1.51	1.47	.00	1.44	1.46	
6060.	5.91	4.68	1.51	1.48	.00	1.46	1.48	
6088.	5.91	4.69	1.50	1.47	.00	1.45	1.48	
6120.	5.72	6.37	1.34	1.47	.00	1.45	1.48	
6141.	5.43	5.05	.00	1.50	.00	1.46	1.48	
6163.	4.44	5.05	.00	1.51	.00	1.46	1.48	
6246.	4.51	6.35	.00	1.51	.00	1.46	1.48	
6286.	4.50	6.30	.00	1.52	.00	1.47	1.49	
6314.	4.48	6.27	.00	1.51	.00	1.46	1.48	
6345.	4.53	6.31	.00	1.52	.00	1.47	1.49	

PACK NO. 76  
 GULTON 20 A.H.

DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
5932.	5.60	6.06	1.17	1.09	1.15	1.16	1.15	1.15
5977.	5.55	6.06	1.15	1.04	1.12	1.13	1.11	1.11
6072.	5.56	6.04	1.17	.97	1.13	1.15	1.13	1.13
6104.	5.55	6.05	1.16	1.05	1.12	1.14	1.12	1.12
6232.	5.44	6.04	1.15	1.02	1.10	1.13	1.11	1.11
6272.	5.40	6.07	1.16	1.01	1.10	1.13	1.10	1.10
6307.	5.60	6.08	1.16	1.03	1.10	1.13	1.12	1.12
6351.	5.49	6.06	1.15	1.01	1.08	1.12	1.11	1.11
6375.	5.39	6.04	1.15	.99	1.04	1.11	1.09	1.09
6404.	5.37	6.04	1.15	.99	1.03	1.11	1.09	1.09

5932.	7.26	4.80	1.45	1.49	1.43	1.48	1.43	1.43
5977.	7.25	4.46	1.45	1.48	1.43	1.48	1.43	1.43
6025.	6.03	6.07	1.22	1.18	1.22	1.22	1.22	1.22
6072.	7.29	4.49	1.46	1.50	1.44	1.52	1.44	1.44
6104.	7.29	4.29	1.46	1.49	1.44	1.49	1.44	1.44
6232.	7.25	4.28	1.45	1.49	1.44	1.50	1.44	1.44
6272.	7.28	4.53	1.47	1.50	1.44	1.51	1.45	1.45
6307.	7.41	4.31	1.45	1.49	1.42	1.49	1.43	1.43
6351.	7.30	3.44	1.44	1.47	1.42	1.47	1.43	1.43
6375.	7.37	3.31	1.45	1.48	1.43	1.49	1.43	1.43
6404.	7.35	3.29	1.45	1.48	1.43	1.48	1.43	1.43

PACK NO. 102  
GULTON 20 A.H.

DEPTH OF DISCHARGE 15  
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
2916.	4.97	5.96	1.25	.00	1.24	1.25	1.24	1.24
2946.	4.97	6.04	1.24	.00	1.25	1.26	1.26	1.26
2968.	4.97	6.02	1.25	.00	1.25	1.26	1.25	1.25
2994.	4.94	6.03	1.25	.00	1.25	1.25	1.24	1.24
3026.	4.93	6.03	1.24	.00	1.25	1.25	1.24	1.24
3058.	4.92	5.95	1.24	.00	1.23	1.23	1.23	1.23
3099.	5.03	6.02	1.24	.00	1.24	1.26	1.26	1.25
3136.	4.98	6.05	1.24	.00	1.24	1.25	1.25	1.24
2916.	6.35	1.38	1.61	.00	1.62	1.53	1.61	1.61
2946.	6.26	1.39	1.63	.00	1.64	1.52	1.58	1.58
2968.	6.27	1.40	1.60	.00	1.62	1.52	1.57	1.57
2994.	6.32	1.40	1.62	.00	1.64	1.52	1.58	1.58
3026.	6.33	1.40	1.62	.00	1.65	1.52	1.57	1.57
3058.	6.15	1.36	1.59	.00	1.59	1.47	1.50	1.50
3099.	6.38	1.41	1.57	.00	1.59	1.56	1.59	1.59
3136.	6.27	1.40	1.59	.00	1.60	1.51	1.55	1.55

END OF CHARGE

PACK NO. 116 TEST TEMPERATURE 0 C  
 GULTON 20 A.H. ORBIT PERIOD 3 HOURS

CYCLE NO. PACK VOLTAGE 10.00 CURRENT

DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 115

CELL VOLTAGES 4 5

END OF DISCHARGE

END OF CHARGE

2772.	5.96	10.07	1.21	1.20	1.16	1.20	1.19
2802.	5.94	10.07	1.23	1.23	1.19	1.23	1.20
2824.	5.97	10.01	1.22	1.17	1.17	1.22	1.20
2850.	5.93	9.96	1.21	1.20	1.15	1.21	1.19
2882.	5.91	9.97	1.21	1.20	1.15	1.21	1.18
2914.	5.91	10.01	1.21	1.20	1.15	1.20	1.18
2955.	5.94	10.03	1.21	1.21	1.17	1.21	1.19
2992.	5.88	10.12	1.20	1.20	1.15	1.21	1.18

2772.	7.89	2.30	1.57	1.62	1.63	1.59	1.56
2802.	7.97	2.18	1.57	1.65	1.62	1.57	1.53
2824.	7.98	2.10	1.58	1.65	1.63	1.59	1.56
2850.	7.92	2.16	1.56	1.63	1.61	1.58	1.55
2882.	8.01	1.94	1.57	1.68	1.62	1.59	1.56
2914.	7.92	1.95	1.55	1.66	1.61	1.57	1.56
2955.	7.83	1.96	1.51	1.60	1.62	1.58	1.56
2992.	7.86	1.97	1.49	1.65	1.62	1.59	1.56

TEST TEMPERATURE 40 C  
ORBIT PERIOD 3 HOURS

DEPTH OF DISCHARGE 15  
PERCENT OF RECHARGE 160

PACK NO. 77  
GULTON 20 A.H.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES				
			1	2	3	4	5
2967.	5.54	5.79	1.11	1.10	1.09	1.11	1.16
3036.	5.41	5.65	1.09	1.07	1.07	1.09	1.14
3072.	5.48	5.75	1.10	1.10	1.09	1.11	1.15
3110.	5.40	6.00	1.07	1.06	1.04	1.07	1.12
2967.	7.08	1.92	1.42	1.41	1.41	1.41	1.42
3036.	7.09	1.88	1.43	1.42	1.42	1.42	1.43
3072.	7.04	1.88	1.42	1.41	1.42	1.42	1.42
3110.	7.10	1.91	1.42	1.41	1.41	1.41	1.42

END OF  
DISCHARGE

END OF  
CHARGE

PACK NO. 91  
GULTON 20 A.H.

TEST TEMPERATURE 40 C  
ORBIT PERIOD 3 HOURS

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 160

CYCLE NO. PACK CURRENT  
VOLTAGE 10.00

CELL VOLTAGES  
1 2 3 4 5

END OF  
DISCHARGE

END OF  
CHARGE

2908.	4.45	9.94	1.13	1.13	1.11	.00	1.10
2944.	4.45	10.02	1.14	1.14	1.11	.00	1.11
2982.	4.34	10.01	1.12	1.12	1.06	.00	1.09

2908.	5.78	3.20	1.46	1.45	1.45	.00	1.44
2944.	5.76	2.84	1.47	1.45	1.46	.00	1.44
2982.	5.77	2.64	1.47	1.46	1.45	.00	1.45

TEST TEMPERATURE 25 C  
ORBIT PERIOD 24 HOURS

DEPTH OF DISCHARGE 50  
PERCENT OF RECHARGE 200

PACK NO. 79  
GULTON 6 A.H.

CYCLE PACK CURRENT  
NO. VOLTAGE 3.0 1 2 3 4 5

331. 3.35 3.03 :00 1.16 :00 1.16 1.16  
339. 3.02 2.99 :00 1.01 :00 1.03 1.01

END OF  
DISCHARGE

331. 4.24 :26 :00 1.40 :00 1.40 1.41  
339. 4.20 :26 :00 1.41 :00 1.40 1.41

END OF  
CHARGE

PACK NO. 93  
 G.E. 12 A.H.

DEPTH OF DISCHARGE 50  
 PERCENT OF RECHARGE 200

TEST TEMPERATURE 40 C  
 ORBIT PERIOD 24 HOURS

CYCLE PACK CURRENT  
 NO. VOLTAGE 6.0

1 2 3 4 5  
 CELL VOLTAGES

302. 4.21 5.96 .00 .00 1.10 1.09 .98  
 310. 2.76 5.93 .00 .00 .85 1.00 .01  
 .52  
 302. 5.55 .65 .00 .00 1.39 1.40 1.39  
 310. 5.55 .66 .00 .00 1.40 1.40 1.39

END OF  
 DISCHARGE

END OF  
 CHARGE

PACK NO. 288	DEPTH OF DISCHARGE: 40%	TEST TEMPERATURE: 25°C
MFR. DELCO (GM)	PERCENT OF RECHARGE: N/A	ORBIT PERIOD: 3 HOURS
CAPACITY 25 A.H.		

CYCLE NO.	PACK VOLTAGE	20.00 CURRENT	CELL VOLTAGES				
			1	2	3	4	5
49	7.33	19.24	1.48	1.47	1.48	1.47	1.47
86	3.52	18.88	1.28	1.23	1.50	1.20	1.61
89	4.50	18.92	1.29	1.26	1.54	1.24	1.10
105	4.84	19.85	1.27	1.23	1.13	1.30	—
118	3.92	19.25	.87	1.15	.60	1.25	—
49	9.78	1.17	1.97	1.98	1.96	1.96	1.97
86	9.76	1.16	1.97	1.95	1.96	1.96	1.95
89	9.77	1.19	2.00	1.97	1.97	1.97	1.97
105	7.36	1.95	1.97	1.97	1.97	1.97	—
118	7.82	1.17	1.95	2.00	1.97	2.01	—

REV.

15.00 PACK DISCONTINUED, CYCLE 120

TEST TEMPERATURE 25 C  
ORBIT PERIOD 3

DEPTH OF DISCHARGE 40  
PERCENT OF RECHARGE

PACK NO. 188  
DELCO-NAOH 25  
HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGE					END OF DISCHARGE	
			1	2	3	4	5		
17:	6.87	20.26	1.36	1.39	1.38	1.38	1.38	1.36	
30:	6.90	20.19	1.35	1.38	1.37	1.37	1.37	1.36	
		15.00							
17:	9.95	1.27	2.00	1.96	1.95	1.96	1.96	2.00	
30:	9.90	1.11	1.95	1.94	1.94	1.94	1.94	1.95	

END OF CHARGE



PACK NO. 315  
 GULTON 4 A.H.

DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
3408.	6.21	1.18	1.24	1.23	1.22	1.22	1.21	1.21
3452.	6.25	1.19	1.21	1.21	1.22	1.22	1.22	1.22
3477.	6.19	1.19	1.25	1.25	1.25	1.25	1.25	1.25
3520.	6.24	1.19	1.25	1.25	1.25	1.25	1.25	1.25
3548.	6.23	1.20	1.26	1.19	1.26	1.26	1.26	1.26
3572.	6.21	1.19	1.25	1.24	1.24	1.24	1.24	1.24
3610.	6.22	1.18	1.25	1.25	1.24	1.24	1.24	1.24
3636.	6.21	1.18	1.25	1.24	1.24	1.24	1.24	1.24
3676.	6.23	1.19	1.25	1.25	1.25	1.25	1.25	1.25
3698.	6.21	1.18	1.26	1.25	1.24	1.23	1.24	1.24
3781.	6.24	1.19	1.24	1.24	1.24	1.24	1.24	1.24
3821.	6.21	1.19	1.25	1.25	1.24	1.25	1.24	1.24
3880.	6.22	1.20	1.25	1.25	1.24	1.24	1.24	1.24

3408.	7.77	.69	1.52	1.53	1.50	1.53	1.52	1.52
3452.	7.74	.63	1.53	1.55	1.53	1.55	1.55	1.55
3477.	7.73	.62	1.54	1.56	1.53	1.56	1.56	1.56
3520.	7.75	.61	1.55	1.56	1.54	1.57	1.57	1.57
3548.	7.77	.61	1.55	1.56	1.54	1.56	1.56	1.56
3572.	7.76	.62	1.55	1.56	1.53	1.56	1.55	1.55
3610.	7.77	.63	1.55	1.56	1.53	1.56	1.55	1.55
3636.	7.78	.61	1.55	1.57	1.54	1.57	1.56	1.56
3676.	7.76	.62	1.55	1.56	1.54	1.57	1.56	1.56
3698.	7.76	.62	1.56	1.57	1.54	1.56	1.56	1.56
3781.	7.84	.63	1.55	1.56	1.54	1.57	1.56	1.56
3821.	7.81	.62	1.55	1.56	1.54	1.57	1.56	1.56
3880.	7.83	.64	1.55	1.57	1.55	1.57	1.56	1.56

END OF CHARGE

TEST TEMPERATURE 0 C  
ORBIT PERIOD 90 MIN.

PACK NO. 326  
GULTON 4 A.H.

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 115

CYCLE PACK CURRENT  
VOLTAGE 2.0

CELL VOLTAGES  
1 2 3 4 5

END OF  
DISCHARGE

END OF  
CHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT	1	2	3	4	5	END OF DISCHARGE	END OF CHARGE
3410.	6.10	1.98	1.19	1.19	1.18	1.18	1.19	1.56	1.55
3455.	6.00	1.99	1.22	1.22	1.21	1.21	1.20	1.58	1.56
3550.	6.04	1.98	1.22	1.22	1.20	1.21	1.22	1.58	1.56
3582.	6.04	1.99	1.20	1.21	1.20	1.20	1.20	1.58	1.54
3646.	6.02	1.99	1.21	1.21	1.20	1.20	1.21	1.56	1.57
3710.	5.96	1.98	1.20	1.20	1.20	1.20	1.20	1.59	1.56
3750.	5.98	2.00	1.22	1.21	1.21	1.20	1.20	1.57	1.55
3785.	6.06	2.00	1.20	1.21	1.20	1.20	1.20	1.57	1.55
3829.	6.02	2.00	1.21	1.21	1.20	1.20	1.21	1.57	1.57
3853.	6.02	1.99	1.20	1.21	1.20	1.20	1.20	1.56	1.54
3882.	6.01	1.99	1.20	1.21	1.20	1.20	1.20	1.56	1.55
3410.	7.90	1.15	1.55	1.52	1.55	1.55	1.56	1.58	1.55
3455.	7.85	.90	1.58	1.55	1.57	1.58	1.56	1.58	1.56
3550.	7.89	.91	1.58	1.55	1.57	1.58	1.56	1.58	1.56
3582.	7.91	.99	1.58	1.55	1.58	1.58	1.56	1.58	1.56
3646.	7.73	.66	1.55	1.53	1.55	1.55	1.54	1.56	1.54
3710.	7.81	.86	1.57	1.54	1.58	1.59	1.57	1.59	1.57
3750.	7.78	.79	1.59	1.55	1.58	1.59	1.56	1.59	1.56
3785.	7.86	.89	1.57	1.54	1.56	1.57	1.56	1.57	1.55
3829.	7.86	.90	1.58	1.55	1.57	1.59	1.57	1.59	1.57
3853.	7.79	.76	1.56	1.53	1.55	1.56	1.56	1.56	1.54
3882.	7.80	.74	1.56	1.54	1.56	1.57	1.56	1.56	1.55

PACK NO. 204 TEST TEMPERATURE 25 C  
 GULTON 4 A.H. ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 125					END OF DISCHARGE
			1	2	3	4	5	
3304.	5.84	2.00	1.17	1.15	1.18	1.17	1.19	
3357.	5.91	2.00	1.19	1.17	1.20	1.19	1.20	
3408.	5.90	2.00	1.19	1.17	1.19	1.17	1.20	
3431.	5.80	2.00	1.17	1.14	1.17	1.17	1.19	
3471.	5.88	2.00	1.19	1.16	1.19	1.19	1.20	
3495.	5.82	1.99	1.17	1.15	1.18	1.18	1.19	
3525.	5.79	2.00	1.17	1.14	1.17	1.17	1.19	
3620.	5.85	2.01	1.15	1.13	1.14	1.16	1.17	
3634.	5.82	2.01	1.14	1.12	1.14	1.15	1.17	
3674.	5.94	2.00	1.17	1.16	1.18	1.18	1.19	
3700.	5.84	2.00	1.15	1.13	1.15	1.16	1.17	
3731.	5.86	2.00	1.15	1.14	1.15	1.17	1.18	
3304.	7.27	1.25	1.46	1.46	1.45	1.47	1.48	
3357.	7.30	1.27	1.47	1.47	1.45	1.48	1.49	
3408.	7.30	1.26	1.47	1.47	1.45	1.47	1.48	
3431.	7.30	1.26	1.46	1.46	1.45	1.47	1.48	
3471.	7.31	1.26	1.47	1.47	1.45	1.48	1.49	
3495.	7.31	1.26	1.47	1.47	1.46	1.48	1.49	
3525.	7.29	1.26	1.47	1.46	1.45	1.47	1.48	
3620.	7.40	1.25	1.45	1.45	1.44	1.47	1.47	
3634.	7.39	1.27	1.45	1.45	1.43	1.48	1.46	
3674.	7.42	1.25	1.46	1.46	1.45	1.48	1.48	
3700.	7.42	1.25	1.46	1.46	1.45	1.47	1.48	
3731.	7.42	1.25	1.46	1.46	1.45	1.48	1.48	

PACK NO. 214  
 GULTON 4 A.H.

DEPTH OF DISCHARGE 40  
 PERCENT OF RECHARGE 125

TEST TEMPERATURE 25 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
2949.	5.63	3.22	1.11	1.12	1.12	1.11	1.13	
2994.	5.60	3.20	1.14	1.14	1.14	1.13	1.13	
3042.	5.53	3.19	1.11	1.11	1.10	1.10	1.12	
3089.	5.60	3.19	1.14	1.06	1.14	1.13	1.14	
3121.	5.61	3.21	1.13	1.13	1.13	1.12	1.13	
3185.	5.64	3.19	1.13	1.14	1.14	1.13	1.13	
3249.	5.46	3.19	1.10	1.11	1.11	1.10	1.11	
3289.	5.41	3.21	1.09	1.10	1.11	1.10	1.10	
3324.	5.72	3.22	1.12	1.13	1.12	1.12	1.12	
3368.	5.63	3.18	1.11	1.12	1.12	1.11	1.11	
3392.	5.63	3.20	1.11	1.12	1.12	1.11	1.10	
2949.	7.43	2.00	1.46	1.45	1.51	1.47	1.48	
2994.	7.40	1.96	1.49	1.47	1.53	1.49	1.48	
3042.	7.42	1.93	1.48	1.47	1.52	1.49	1.49	
3089.	7.43	1.92	1.49	1.47	1.53	1.49	1.50	
3121.	7.43	1.93	1.49	1.47	1.53	1.49	1.49	
3185.	7.46	1.89	1.49	1.48	1.54	1.50	1.50	
3249.	7.39	1.86	1.48	1.47	1.53	1.50	1.49	
3289.	7.38	1.91	1.48	1.47	1.53	1.50	1.50	
3324.	7.56	1.91	1.48	1.46	1.52	1.48	1.48	
3368.	7.46	1.52	1.47	1.46	1.50	1.48	1.47	
3392.	7.48	1.50	1.47	1.46	1.51	1.48	1.47	

END OF CHARGE

PACK NO. 228 TEST TEMPERATURE 40 C  
 GULTON 4 A.H. ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 160					END OF DISCHARGE
			1	2	3	4	5	
3269.	5.94	1.19	1.22	1.21	1.21	1.18	1.22	
3293.	5.99	1.20	1.22	1.21	1.22	1.19	1.23	
3346.	6.03	1.20	1.22	1.22	1.22	1.19	1.22	
3397.	6.02	1.19	1.23	1.22	1.22	1.19	1.22	
3420.	5.96	1.20	1.22	1.21	1.21	1.17	1.21	
3460.	5.99	1.20	1.22	1.21	1.21	1.18	1.21	
3484.	5.97	1.20	1.22	1.21	1.21	1.17	1.21	
3514.	5.96	1.20	1.22	1.20	1.20	1.17	1.21	
3609.	6.06	1.20	1.21	1.20	1.19	1.16	1.20	
3623.	6.05	1.21	1.20	1.20	1.19	1.16	1.20	
3663.	6.10	1.19	1.22	1.21	1.21	1.18	1.21	
3681.	6.03	1.19	1.21	1.20	1.19	1.16	1.20	
3720.	6.07	1.19	1.21	1.21	1.20	1.17	1.21	

3269.	7.06	.96	1.42	1.42	1.43	1.44	1.44	1.44
3293.	7.09	.98	1.41	1.41	1.42	1.43	1.44	1.44
3346.	7.09	.98	1.43	1.42	1.42	1.43	1.43	1.43
3397.	7.09	.98	1.43	1.42	1.42	1.43	1.43	1.43
3420.	7.09	.98	1.43	1.42	1.42	1.42	1.42	1.42
3460.	7.06	.98	1.43	1.41	1.42	1.42	1.42	1.42
3484.	7.10	.97	1.43	1.42	1.43	1.43	1.43	1.43
3514.	7.08	.98	1.43	1.42	1.42	1.42	1.43	1.43
3609.	7.21	.98	1.42	1.42	1.41	1.42	1.42	1.42
3623.	7.21	1.00	1.42	1.41	1.41	1.42	1.42	1.42
3663.	7.20	.97	1.43	1.42	1.42	1.42	1.43	1.43
3681.	7.20	.97	1.43	1.42	1.42	1.42	1.43	1.43
3720.	7.16	.76	1.42	1.41	1.41	1.42	1.42	1.42

END OF CHARGE

PACK NO. 216  
 GULTON 12 A.H.

DEPTH OF DISCHARGE 15  
 PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO. PACK CURRENT  
 VOLTAGE 3.6

CELL VOLTAGES  
 1 2 3 4 5

END OF  
 DISCHARGE

END OF  
 CHARGE

CYCLE NO.	PACK CURRENT	1	2	3	4	5	END OF DISCHARGE
161.	6.21	1.25	1.26	1.26	1.26	1.26	1.27
185.	6.22	1.25	1.26	1.26	1.26	1.26	1.27
238.	6.25	1.26	1.26	1.26	1.26	1.26	1.26
289.	6.24	1.26	1.26	1.26	1.26	1.26	1.26
312.	6.22	1.25	1.26	1.25	1.25	1.25	1.26
352.	6.22	1.26	1.26	1.26	1.25	1.25	1.26
376.	6.23	1.26	1.26	1.26	1.25	1.25	1.26
406.	6.22	1.25	1.25	1.25	1.25	1.25	1.25
501.	6.33	1.24	1.25	1.24	1.24	1.24	1.24
515.	6.33	1.24	1.25	1.24	1.24	1.24	1.24
555.	6.33	1.26	1.26	1.25	1.25	1.25	1.25
581.	6.31	1.25	1.25	1.24	1.25	1.25	1.25
612.	6.33	1.25	1.26	1.25	1.25	1.25	1.25

CYCLE NO.	PACK CURRENT	1	2	3	4	5	END OF CHARGE
161.	7.74	1.62	1.52	1.53	1.54	1.54	1.56
185.	7.74	1.64	1.53	1.53	1.54	1.54	1.56
238.	7.74	1.64	1.53	1.53	1.53	1.53	1.55
289.	7.75	1.41	1.53	1.53	1.53	1.53	1.55
312.	7.74	1.47	1.53	1.53	1.53	1.53	1.55
352.	7.75	1.40	1.53	1.53	1.53	1.53	1.56
376.	7.76	1.40	1.54	1.53	1.54	1.54	1.56
406.	7.74	1.43	1.53	1.53	1.53	1.53	1.55
501.	7.89	1.43	1.53	1.52	1.53	1.53	1.54
515.	7.89	1.46	1.53	1.52	1.53	1.53	1.54
555.	7.87	1.52	1.53	1.52	1.53	1.53	1.55
581.	7.87	1.51	1.53	1.52	1.53	1.53	1.55
612.	7.88	1.48	1.54	1.53	1.54	1.54	1.55

PACK NO: 240  
 GULTON 4 A. H.

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
3211.	5.37	2.00	1.06	1.10	1.02	1.09	1.07	
3283.	5.33	2.00	1.08	1.11	1.05	1.11	1.08	
3307.	5.39	2.01	1.09	1.13	1.06	1.13	1.10	
3360.	5.54	2.01	1.11	1.13	1.09	1.13	1.10	
3411.	5.55	2.01	1.12	1.14	1.09	1.14	1.11	
3434.	5.35	2.01	1.07	1.11	1.03	1.10	1.07	
3474.	5.50	2.01	1.11	1.13	1.09	1.12	1.09	
3498.	5.42	2.01	1.09	1.12	1.05	1.12	1.09	
3528.	5.38	2.01	1.09	1.11	1.03	1.11	1.07	
3623.	5.58	1.99	1.10	1.12	1.07	1.11	1.08	
3637.	5.42	2.01	1.07	1.10	1.03	1.08	1.05	
3677.	5.60	1.99	1.12	1.13	1.07	1.13	1.09	
3703.	5.45	1.99	1.09	1.11	1.04	1.10	1.05	
3734.	5.45	1.99	1.08	1.10	1.03	1.10	1.06	

3211.	7.12	1.60	1.45	1.44	1.42	1.43	1.43	
3283.	7.16	1.35	1.45	1.46	1.45	1.46	1.47	
3307.	7.20	1.32	1.44	1.45	1.44	1.45	1.46	
3360.	7.18	1.30	1.45	1.45	1.43	1.44	1.45	
3411.	7.19	1.26	1.45	1.45	1.43	1.44	1.45	
3434.	7.19	1.32	1.45	1.45	1.43	1.44	1.45	
3474.	7.15	1.37	1.45	1.44	1.43	1.44	1.44	
3498.	7.19	1.28	1.45	1.46	1.44	1.44	1.45	
3528.	7.18	1.29	1.45	1.45	1.43	1.44	1.44	
3623.	7.29	1.16	1.44	1.44	1.42	1.43	1.43	
3637.	7.29	1.13	1.43	1.44	1.42	1.43	1.43	
3677.	7.30	1.22	1.45	1.44	1.42	1.43	1.43	
3703.	7.27	1.19	1.44	1.45	1.43	1.44	1.43	
3734.	7.28	1.16	1.44	1.45	1.43	1.44	1.44	

PACK NO. 301  
GULTON 12 A.H.

DEPTH OF DISCHARGE 25  
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C  
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT  
VOLTAGE 6.00

CELL VOLTAGES  
4 5

END OF  
DISCHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT	1	2	3	4	5	END OF DISCHARGE
1137.	6.23	5.87	1.26	1.26	1.25	1.26	1.26	1.25
1181.	6.21	5.87	1.24	1.25	1.24	1.24	1.24	1.24
1206.	6.11	5.92	1.23	1.23	1.21	1.21	1.21	1.21
1249.	6.18	5.98	1.24	1.24	1.24	1.24	1.24	1.24
1277.	6.20	5.94	1.25	1.25	1.22	1.25	1.25	1.25
1301.	6.14	5.96	1.24	1.24	1.24	1.24	1.24	1.24
1339.	6.15	5.97	1.24	1.24	1.24	1.24	1.24	1.24
1365.	6.13	5.97	1.24	1.24	1.24	1.23	1.24	1.24
1405.	6.16	5.98	1.24	1.24	1.23	1.24	1.23	1.23
1460.	6.15	6.05	1.24	1.24	1.23	1.23	1.23	1.23
1500.	6.13	5.97	1.24	1.24	1.23	1.23	1.23	1.23
1528.	6.13	5.96	1.24	1.24	1.23	1.23	1.23	1.23
1559.	6.12	5.99	1.24	1.24	1.23	1.23	1.23	1.23

END OF  
CHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT	1	2	3	4	5	END OF CHARGE
1137.	7.87	3.45	1.59	1.58	1.57	1.63	1.57	1.57
1181.	7.85	3.20	1.56	1.54	1.53	1.60	1.54	1.54
1206.	7.85	3.08	1.56	1.54	1.53	1.60	1.54	1.54
1249.	7.90	3.10	1.58	1.57	1.56	1.63	1.58	1.58
1277.	7.91	3.06	1.58	1.57	1.56	1.63	1.58	1.58
1301.	7.89	3.00	1.59	1.57	1.56	1.64	1.58	1.58
1339.	7.91	3.06	1.58	1.57	1.56	1.64	1.59	1.59
1365.	7.93	3.01	1.59	1.57	1.57	1.65	1.59	1.59
1405.	7.92	3.11	1.58	1.57	1.56	1.64	1.58	1.58
1460.	7.97	3.03	1.60	1.58	1.57	1.65	1.60	1.60
1500.	7.81	1.98	1.56	1.56	1.54	1.63	1.56	1.56
1528.	7.80	2.00	1.56	1.55	1.54	1.62	1.55	1.55
1559.	7.79	2.09	1.56	1.55	1.54	1.62	1.56	1.56

PACK NO. 227  
 GULTON 12 A.H.

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 125

TEST TEMPERATURE 25 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.    PACK VOLTAGE    6.0    CURRENT

CELL VOLTAGE

	1	2	3	4	5
517.	1.19	1.19	1.18	1.19	1.19
548.	1.20	1.20	1.20	1.20	1.20
601.	1.21	1.21	1.21	1.21	1.21
652.	1.22	1.21	1.20	1.22	1.22
675.	1.20	1.20	1.19	1.20	1.21
717.	1.20	1.20	1.20	1.21	1.21
739.	1.20	1.20	1.19	1.20	1.21
769.	1.20	1.19	1.18	1.20	1.21
811.	1.19	1.19	1.18	1.20	1.20
864.	1.18	1.17	1.16	1.18	1.19
878.	1.18	1.18	1.16	1.19	1.20
920.	1.18	1.17	1.16	1.19	1.20
946.	1.17	1.17	1.15	1.18	1.20
975.	1.16	1.15	1.14	1.17	1.20

END OF  
DISCHARGE

517.	3.75
548.	3.84
601.	3.76
652.	3.78
675.	3.78
717.	3.77
739.	3.72
769.	3.76
811.	3.72
864.	3.81
878.	3.85
920.	3.81
946.	3.83
975.	3.80

END OF  
CHARGE

1.42	1.42	1.41	1.42	1.44	1.44
1.44	1.43	1.43	1.43	1.43	1.45
1.44	1.44	1.44	1.44	1.44	1.46
1.45	1.45	1.45	1.45	1.45	1.47
1.45	1.44	1.44	1.44	1.44	1.46
1.45	1.45	1.44	1.44	1.44	1.46
1.45	1.44	1.44	1.44	1.44	1.46
1.44	1.44	1.44	1.44	1.44	1.46
1.44	1.43	1.43	1.43	1.43	1.45
1.43	1.43	1.42	1.43	1.44	1.44
1.45	1.44	1.44	1.44	1.44	1.46
1.44	1.44	1.43	1.44	1.44	1.45
1.44	1.44	1.44	1.44	1.44	1.45
1.44	1.44	1.44	1.44	1.44	1.45
1.44	1.44	1.44	1.44	1.44	1.46

PACK NO. 296  
 GULTON 12 A.H.

DEPTH OF DISCHARGE 40  
 PERCENT OF RECHARGE 125

TEST TEMPERATURE 25 C  
 ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT  
 NO. VOLTAGE 9.60

CELL VOLTAGES  
 1 2 3 4 5

END OF  
 DISCHARGE

1360.	5.14	9.22	1.07	1.05	.99	1.02	1.07
1404.	5.24	9.30	1.04	1.02	.98	1.00	1.06
1429.	4.41	7.86	.92	.91	.81	.87	.95
1472.	5.23	9.32	1.09	1.06	1.02	1.03	1.09
1510.	5.36	9.65	1.10	1.08	1.02	1.07	1.11
1537.	4.97	9.68	1.04	1.01	.94	.98	1.02
1577.	5.17	9.62	1.06	1.05	1.02	1.02	1.06
1599.	4.73	9.61	.99	.98	.92	.92	.97
1682.	5.31	9.61	1.08	1.06	1.01	1.03	1.08
1722.	5.08	9.60	1.04	1.03	.98	.98	1.04
1750.	4.96	9.60	1.03	1.01	.95	.94	1.03
1781.	5.28	9.59	1.09	1.07	1.01	1.01	1.09

END OF  
 CHARGE

1360.	7.31	6.00	1.44	1.43	1.42	1.42	1.44
1404.	7.36	6.09	1.45	1.44	1.44	1.45	1.48
1429.	7.26	6.17	1.45	1.43	1.42	1.42	1.44
1472.	7.34	6.02	1.48	1.47	1.46	1.46	1.49
1510.	7.31	6.15	1.47	1.46	1.45	1.45	1.48
1537.	7.34	6.15	1.48	1.47	1.46	1.46	1.49
1577.	7.36	6.12	1.48	1.48	1.47	1.47	1.49
1599.	7.34	6.13	1.49	1.47	1.47	1.45	1.49
1682.	7.39	6.12	1.46	1.46	1.45	1.45	1.47
1722.	7.39	6.12	1.47	1.47	1.46	1.46	1.48
1750.	7.35	6.09	1.46	1.47	1.45	1.45	1.46
1781.	7.45	6.09	1.49	1.49	1.47	1.48	1.49

PACK NO. 290  
 GULTON 12 A.H.

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE 6.00	CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
1361.	5.40	6.01	1.10	1.10	1.10	1.10	1.10	1.07
1406.	5.42	6.04	1.09	1.09	1.10	1.10	1.10	1.06
1610.	5.27	5.98	1.08	1.05	1.08	1.09	1.09	1.04
1650.	5.26	5.99	1.07	1.06	1.09	1.09	1.09	1.03
1685.	5.52	6.01	1.12	1.11	1.12	1.12	1.12	1.09
1729.	5.39	6.00	1.08	1.08	1.11	1.11	1.11	1.07
1753.	5.44	5.98	1.09	1.09	1.11	1.12	1.12	1.08
1782.	5.46	5.99	1.10	1.10	1.11	1.12	1.12	1.09

CYCLE NO.	PACK VOLTAGE 6.00	CURRENT	CELL VOLTAGES					END OF CHARGE
			1	2	3	4	5	
1361.	7.21	4.80	1.44	1.43	1.43	1.43	1.43	1.44
1406.	7.22	4.54	1.45	1.44	1.44	1.43	1.43	1.44
1610.	7.22	4.39	1.47	1.45	1.46	1.45	1.45	1.45
1650.	7.24	4.40	1.48	1.46	1.47	1.46	1.46	1.46
1685.	7.24	4.37	1.46	1.45	1.45	1.44	1.44	1.45
1729.	7.25	4.42	1.47	1.46	1.46	1.44	1.44	1.46
1753.	7.26	4.38	1.47	1.46	1.45	1.45	1.45	1.46
1782.	7.26	4.36	1.47	1.46	1.46	1.45	1.45	1.46

PACK NO. 78 TEST TEMPERATURE 40 C  
 GULTON 12 A.H. ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE PERCENT OF RECHARGE					END OF DISCHARGE
			1	2	3	4	5	
1081.	5.35	3.56	1.17	1.15	1.15	.80	1.15	
1112.	5.39	3.55	1.15	1.14	1.15	.80	1.16	
1165.	5.54	3.55	1.17	1.17	1.16	.88	1.16	
1216.	5.49	3.54	1.19	1.18	1.18	.81	1.18	
1239.	5.06	3.51	1.16	1.15	1.15	.49	1.15	
1281.	4.18	3.55	1.14	1.13	1.13	.31	1.13	
1307.	5.40	3.59	1.26	1.25	1.25	.44	1.26	
1333.	4.84	3.62	1.22	1.22	1.21	.00	1.23	
1428.	4.74	3.87	1.17	1.16	1.17	.00	1.19	
1442.	4.81	3.61	1.18	1.18	1.18	.00	1.19	
1484.	5.39	3.09	1.34	1.35	1.34	.00	1.34	
1510.	4.75	3.52	1.18	1.18	1.18	.00	1.18	

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE PERCENT OF RECHARGE					END OF CHARGE
			1	2	3	4	5	
1081.	7.06	2.88	1.41	1.39	1.39	1.46	1.39	
1112.	7.08	2.92	1.40	1.40	1.40	1.48	1.41	
1165.	7.11	2.93	1.41	1.40	1.40	1.48	1.41	
1216.	7.11	2.81	1.42	1.41	1.41	1.50	1.42	
1239.	7.08	2.25	1.41	1.40	1.40	1.48	1.41	
1281.	7.05	1.95	1.41	1.40	1.40	1.48	1.40	
1307.	7.12	2.86	1.42	1.41	1.41	1.50	1.42	
1333.	5.66	2.90	1.42	1.41	1.42	.00	1.42	
1428.	5.68	2.92	1.41	1.41	1.41	.00	1.41	
1442.	5.68	2.95	1.41	1.41	1.40	.00	1.41	
1484.	5.66	2.91	1.41	1.41	1.41	.00	1.41	
1510.	5.65	2.90	1.41	1.41	1.40	.00	1.41	

PACK NO. 213  
 GULTON HSI 6 A.H.  
 TEST TEMPERATURE 0 C  
 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	DEPTH OF DISCHARGE PERCENT OF RECHARGE					CELL VOLTAGES					END OF DISCHARGE	
			1	2	3	4	5	1	2	3	4	5		
104.	6.14	3.02	1.22	1.22	1.21	1.21	1.21	1.21	1.21	1.22	1.22	1.22	1.22	
148.	6.16	3.02	1.21	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.23	1.23	
173.	6.11	3.03	1.21	1.21	1.20	1.20	1.21	1.21	1.21	1.21	1.21	1.21	1.21	
216.	6.14	3.00	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	
244.	6.12	3.01	1.24	1.17	1.25	1.24	1.24	1.24	1.24	1.24	1.25	1.25	1.25	
268.	6.12	3.02	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	
306.	6.12	3.02	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	
332.	6.10	3.02	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	
372.	6.13	3.02	1.23	1.24	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.24	1.24	
394.	6.11	3.03	1.23	1.23	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.23	1.23	
477.	6.25	3.05	1.22	1.23	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.23	1.23	
517.	6.24	3.02	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	
545.	6.24	3.04	1.23	1.23	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	
576.	6.25	3.01	1.24	1.24	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	

104.	7.69	1.73	1.52	1.52	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.54
148.	7.70	1.25	1.51	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.55
173.	7.68	1.25	1.52	1.51	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.54
216.	7.70	1.24	1.54	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.57
244.	7.70	1.23	1.55	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.57
268.	7.69	1.23	1.54	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.57
306.	7.70	1.24	1.54	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.57
332.	7.71	1.21	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.57
372.	7.70	1.25	1.54	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.57
394.	7.71	1.25	1.53	1.53	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.56
477.	7.84	1.24	1.53	1.53	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.56
517.	7.83	1.23	1.54	1.54	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.56
545.	7.81	1.25	1.53	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.56
576.	7.83	1.22	1.54	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.57



PACK NO. 238  
 GULTON HSI 6 A.H.

DEPTH OF DISCHARGE 25  
 PERCENT OF RECHARGE 160

TEST TEMPERATURE 40 C  
 ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT VOLTAGE 3.0

CELL VOLTAGES 1 2 3 4 5

END OF DISCHARGE

END OF CHARGE

106.	5.98	2.97	1.19	1.18	1.18	1.18	1.18	1.18	1.18
151.	5.82	3.00	1.19	1.18	1.17	1.17	1.18	1.18	1.17
199.	5.76	2.94	1.17	1.16	1.14	1.14	1.15	1.15	1.16
246.	5.64	3.00	1.18	1.06	1.14	1.14	1.15	1.15	1.17
278.	5.72	3.01	1.17	1.15	1.14	1.14	1.15	1.15	1.16
342.	5.68	2.98	1.16	1.14	1.13	1.13	1.14	1.14	1.15
372.	5.60	3.00	1.14	1.13	1.11	1.11	1.12	1.12	1.14
406.	5.51	2.96	1.13	1.12	1.10	1.10	1.12	1.12	1.13
446.	5.44	2.97	1.13	1.10	1.08	1.08	1.10	1.10	1.11
481.	5.72	2.99	1.13	1.12	1.11	1.11	1.12	1.12	1.13
525.	5.64	2.96	1.13	1.11	1.10	1.10	1.11	1.11	1.12
549.	5.66	2.98	1.13	1.11	1.10	1.10	1.11	1.11	1.12
578.	5.67	3.00	1.13	1.12	1.11	1.11	1.11	1.11	1.12
106.	7.04	2.40	1.39	1.37	1.37	1.37	1.37	1.37	1.38
151.	7.01	2.45	1.42	1.41	1.41	1.41	1.40	1.40	1.40
199.	7.03	2.39	1.42	1.41	1.41	1.41	1.41	1.41	1.41
246.	7.04	2.38	1.42	1.41	1.41	1.41	1.41	1.41	1.42
278.	7.06	2.45	1.43	1.42	1.41	1.41	1.42	1.42	1.42
342.	7.06	2.46	1.43	1.42	1.42	1.42	1.42	1.42	1.42
372.	7.08	2.46	1.43	1.42	1.42	1.42	1.42	1.42	1.42
406.	7.01	2.47	1.42	1.41	1.42	1.42	1.42	1.42	1.42
446.	7.03	2.49	1.43	1.42	1.42	1.42	1.42	1.42	1.43
481.	7.20	2.46	1.42	1.41	1.41	1.41	1.41	1.41	1.41
525.	7.16	2.36	1.42	1.42	1.41	1.41	1.42	1.42	1.42
549.	7.17	2.31	1.42	1.42	1.41	1.41	1.41	1.41	1.42
578.	7.15	2.33	1.42	1.42	1.41	1.41	1.42	1.42	1.42